Joint Venture
SILICON VALLEY NETWORK

SILICON VALLEY | community foundation
SERVING SAN MATEO AND SANTA CLARA COUNTIES

index OF SILICON VALLEY

2010

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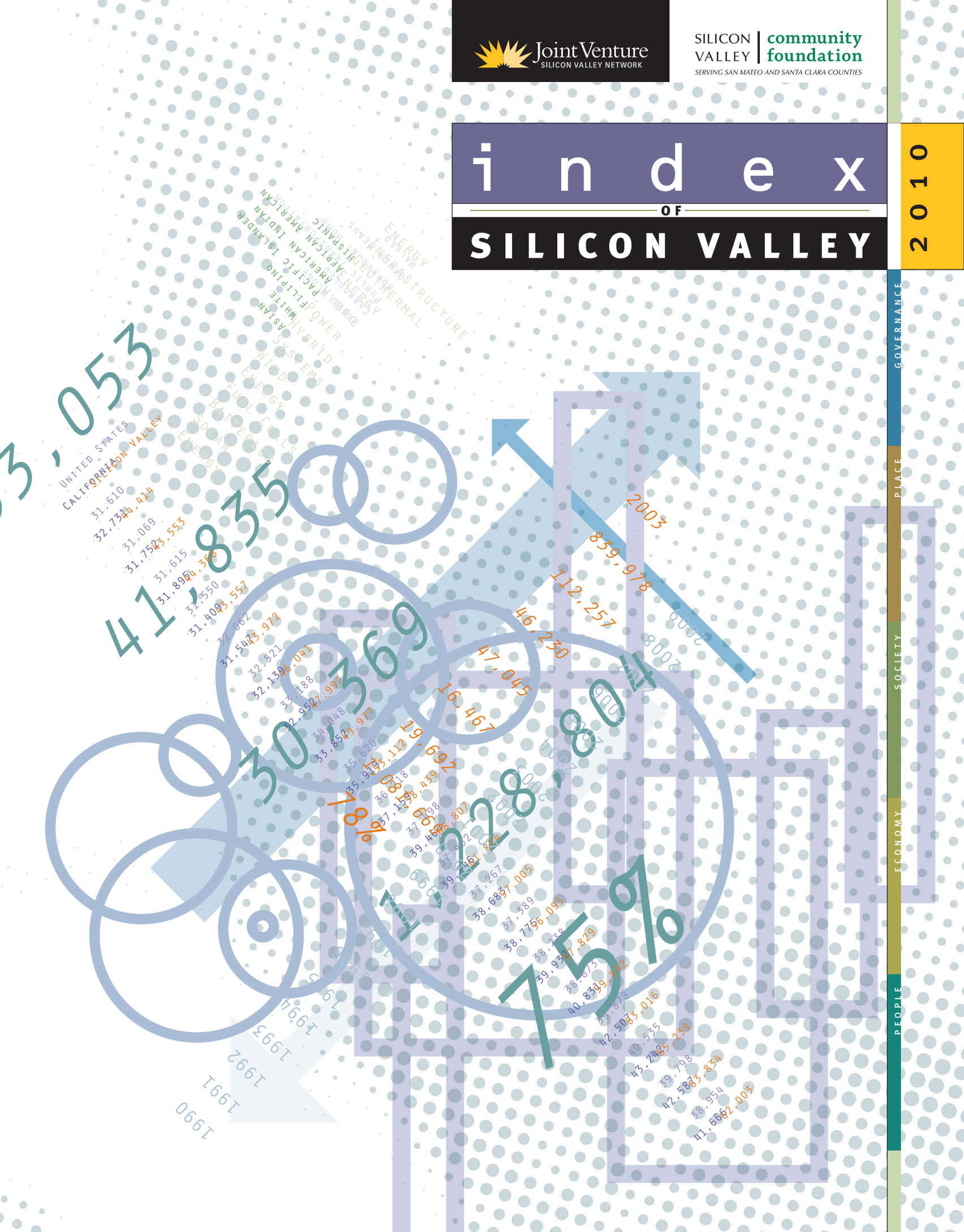

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Dear Friends:

2009 was a rough year. We learned the hard way that Silicon Valley is not immune to the larger forces at work in the global economic recession. Like other regions, we have lost tens of thousands of jobs, absorbed thousands of home foreclosures, and seen our incomes decline. Despite our many strengths—from talented people to world-class technology—we could not insulate ourselves from the larger economic downturn.

Now we are at a critical moment. We must face facts and address the vulnerabilities that put our economy and community at risk.

This year's *Index* provides a sobering picture of our current situation and contains critical information we will need to move forward. In addition to the *Index* itself, we present a *Special Analysis* which is a call to action based on these facts. It suggests Silicon Valley has entered a new era of uncertainty, with a set of vulnerabilities that could compromise our long-term prosperity. Our continued ability to import and develop talent, fund innovation, and rely on state government for overall support are seriously in question. We are a region at risk.

This is not a time for complacency. At a time when we need to engage more actively in the global economy, the very foundations for that engagement are weakening. We're disinvesting in education and we're not cultivating talent. Our state is no longer able to make crucial investments in infrastructure. Gridlock in Sacramento has become a major barrier to our ability to compete abroad and solve problems here at home.

Of course we still have many strengths as an innovation economy, and as a vibrant community. Silicon Valley competes at a very high level with other advanced regions in the global economy. But we must continue to build on these strengths if we are to maintain our position in a world that is rapidly rising to challenge us. From the rise of Asian economies to California's budget meltdown, our future will in many ways depend on how we respond to forces emanating beyond our region.

To maintain our customary place in the world economy we must face the facts, challenge our assumptions, and address these new realities with the ingenuity and drive that has always been a hallmark of our Valley. Joint Venture and Silicon Valley Community Foundation are working together to help our region meet these challenges. We hope this year's *Index* and *Special Analysis* will be a catalyst for action.

Sincerely,

Russell Hancock, Ph.D.
President & Chief Executive Officer
Joint Venture: Silicon Valley Network

Emmett D. Carson, Ph.D.
CEO & President
Silicon Valley Community Foundation

Joint Venture
SILICON VALLEY NETWORK

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SERVING SAN MATEO AND SANTA CLARA COUNTIES

THE SILICON VALLEY REGION

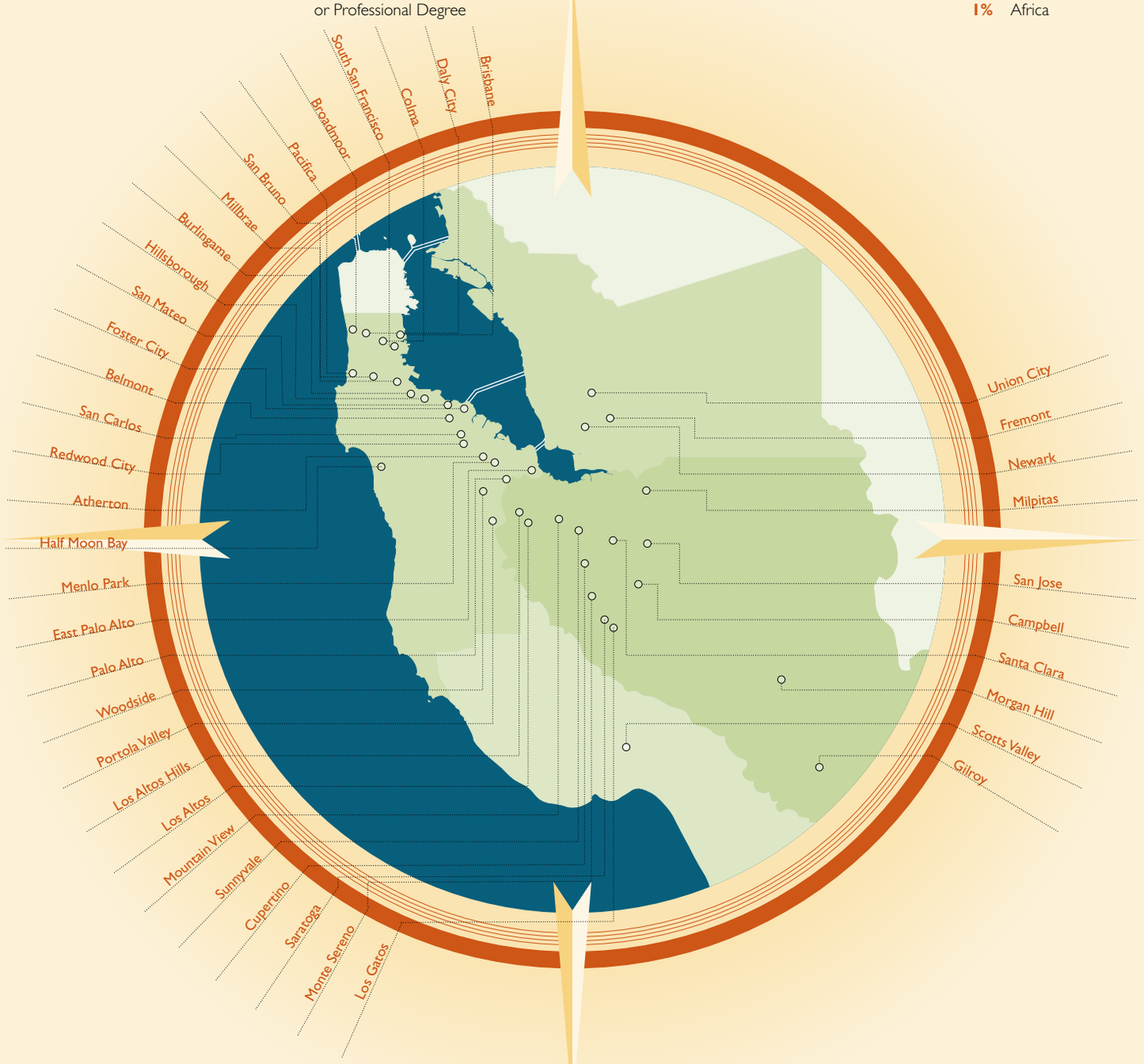
Area: 1,854 square miles
Population: 2.9 million
Jobs: 1,322,634
Average Annual Salary: $75,390
Foreign Immigration: +14,264
Domestic Migration: -3,728

Adult educational attainment:
11% Less than High School
18% High School Graduate
28% Some College
26% Bachelor's Degree
17% Graduate or Professional Degree

Age distribution:
13% 0-9 years old
13% 10-19
36% 20-44
26% 45-64
12% 65 and older

Ethnic composition:
40% White, non-Hispanic
29% Asian, non-Hispanic
25% Hispanic
2.6% Black, non-Hispanic
<4% Multiple and Other

Foreign Born: 36%
Origin:
58% Asia
31% Americas
9% Europe
1% Oceana
1% Africa



The geographical boundaries of Silicon Valley vary. The region's core has been defined as Santa Clara County plus adjacent parts of San Mateo, Alameda and Santa Cruz Counties. In order to reflect the geographic expansion of the region's driving industries and employment, the *2010 Index* includes all of San Mateo County. Silicon Valley is defined as the following cities:

Santa Clara County (all)

Campbell, Cupertino, Gilroy, Los Altos, Los Altos Hills, Los Gatos, Milpitas, Monte Sereno, Morgan Hill, Mountain View, Palo Alto, San Jose, Santa Clara, Saratoga, Sunnyvale

Alameda County

Fremont, Newark, Union City

San Mateo County (all)

Atherton, Belmont, Brisbane, Broadmoor, Burlingame, Colma, Daly City, East Palo Alto, Foster City, Half Moon Bay, Hillsborough, Menlo Park, Millbrae, Pacifica, Portola Valley, Redwood City, San Bruno, San Carlos, San Mateo, South San Francisco, Woodside

Santa Cruz County

Scotts Valley

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2010 INDEX HIGHLIGHTS

Silicon Valley has taken a significant hit in the current economic downturn, with job losses spanning the economy.

- While the region was slower to report employment losses in 2008, job losses in San Mateo and Santa Clara Counties picked up their pace over the last year. Between December 2008 and December 2009, the employed residents in the two counties posted a drop of 5.8 percent (compared to 3.8 percent nationally). *(see page 16)*
- In absolute terms, the region lost roughly 90,000 jobs between the second quarter of 2008 and 2009, bringing total employment down to 2005 levels. *(see page 17)*
- Despite these losses, jobs at Silicon Valley businesses that provide products and services to reduce our dependence on fossil fuels, improve resource conservation, and reduce pollution have increased by more than 50 percent since 1995. Between January 2007 and 2008, these jobs in the core green economy expanded by eight percent. *(see page 19)*
- While "green" opportunities account for roughly 14,000 jobs in the region (more than the region's Medical Devices industry), it is composed of a wide range of industries projected to grow. *(see page 19)*

Silicon Valley's households are feeling the pressure.

- While fifty percent higher than the state and nation, real per capita income in the region has been falling at a faster rate since 2007. *(see page 20)* Still, filings for non-business bankruptcy and participation in food stamps are both increasing at slower rates than the state or nation. *(see page 21)*

Silicon Valley's economic and innovation engine has cooled off.

- The number of patents in Silicon Valley declined (though less than one percent from last year), while the total number of U.S. patents decreased by 2.6 percent. Despite the decline, Silicon Valley's percentage of patent registrations in California and the U.S. increased between 2007 and 2008. *(see page 23)*
- Total venture capital investment was down in 2009 (though an uptick in activity was reported in the third quarter). Growing areas of investment are in Industrial/Energy, Media & Entertainment, Biotechnology, and Medical Devices. *(see page 25)*
- Office vacancy rates are at an all-time high since 1998. The continued decrease in demand for commercial real estate combined with the creation of 1.7 million square feet of new commercial space have driven commercial vacancies up 33 percent in 2009 over 2008. *(see page 52)*
- But the region continues to birth and attract new business establishments. Between January 2007 and 2008, the region witnessed a net gain of approximately 9,500 establishments, twice the average annual net gain over the whole period. *(see page 27)*

Silicon Valley is highly diverse and the inflow of foreign talent has been driving the region's population growth.

- The percentage of the region's population that speaks a language other than English at home dropped modestly by one percent over the prior year to 48 percent – the first decline since 2004. *(see page 13)* Science and engineering degrees conferred to foreign students continued its decline (except for Ph.D. recipients). *(see page 15)*
- The region's small but growing arts and cultural organizations reflect the region's rich ethnic diversity. *(see page 34)*

Progress is being made in early childhood health; however, challenges in educational outcomes persist in the region.

- Silicon Valley shows rising child immunization rates and dropping mortality rates. *(see pages 36-37)*
- Graduation rates are making modest gains, but fewer graduates are meeting UC/CSU requirements. *(see page 29)* Disparities persist by ethnicity in third grade English language arts proficiency. *(see page 33)*
- Adult and juvenile felony offenses continue to drop, but child welfare services are coming under new pressure. *(see page 38)*

Silicon Valley is improving in environmental quality and resource efficiency; however, more progress must be made toward our region's sustainability goals.

- Silicon Valley drivers are driving less and shifting to cleaner vehicles. *(see page 45)* Since 2002, vehicle miles traveled has decreased 14 percent as gas prices have increased 91 percent. *(see page 44)*
- Transit-oriented development continues to expand, and with varying levels of success, cities are developing permitting to reflect growing demand for installation of renewable energy systems. *(see page 47)* 2009 marks the fifth year in which newly approved housing has averaged more than 20 units per acre. *(see page 46)*

As a result of the financial crisis, some households are under pressure from ballooning mortgages, but other households are benefiting from the resulting fall in home prices.

- Residential foreclosure activity dropped by 39 percent in Silicon Valley in 2009 since its peak in 2008. Similarly, foreclosure activity in California has also been ebbing. In the first three quarters of 2009, residential foreclosure sales accounted for nearly one quarter of home sales in the region. *(see page 50)*
- Housing affordability for first-time homebuyers is improving. *(see page 49)* In addition to foreclosure sales, the number of new affordable housing units doubled since 2008 and accounted for eleven percent of new housing units in the region in 2009. *(see page 48)*
- Average rents declined six percent from 2008 to 2009, the first drop in rents since 2005. *(see page 49)*

Silicon Valley's contribution to state coffers continues to rise.

- While representing only seven percent of the state's population, the region contributed 16 percent of total state revenues from personal income tax in 2008. Silicon Valley's contribution to California State tax revenue through personal income tax has steadily increased since 2006, with a one percent increase in each of the past two years. *(see page 57)*

THE 2010 INDEX

AT A GLANCE

WHAT IS THE INDEX?

The Silicon Valley Index has been telling the Silicon Valley story since 1995. Released early every year, the indicators measure the strength of our economy and the health of our community—highlighting challenges and providing an analytical foundation for leadership and decision-making.

WHAT IS AN INDICATOR?

Indicators are measurements that tell us how we are doing: whether we are going up or down, going forward or backward, getting better or worse, or staying the same.

Good indicators:

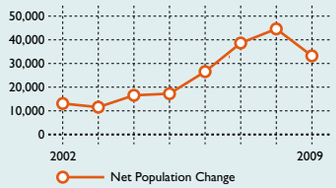
- are bellwethers that reflect fundamentals of long-term regional health;
- reflect the interests and concerns of the community;
- are statistically measurable on a frequent basis;
- measure outcomes, rather than inputs.

Appendix A provides detail on data sources for each indicator

PEOPLE

Population growth continues to be driven by foreign migration but slowed in 2009.

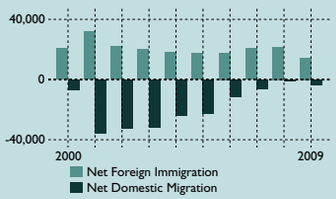
Net Population Change



Percent Change between 2008 and 2009

Silicon Valley	+1.3% ▲
California	+0.9% ▲

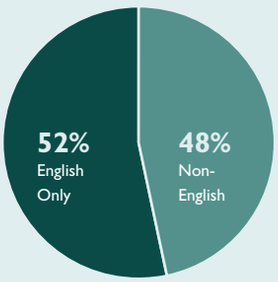
Net Migration Flows



Population Change between 2008 and 2009

Net Foreign Immigration	-34% ▼
Net Domestic Migration	+317% ▲

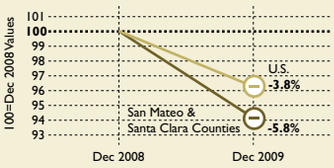
Language Spoken at Home



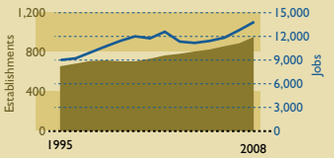
ECONOMY

While the region was slower to report job losses in 2008, losses now mirror national trends; however, new areas of growth are emerging.

Change in Jobs Relative to December 2008

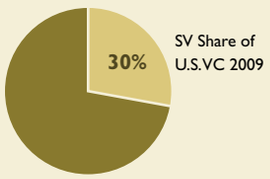


Green Business Establishments & Jobs



Green Growth	95-08	04-08
Jobs	+53%	+24%
Establishments	+45%	+18%

Venture Capital Investment

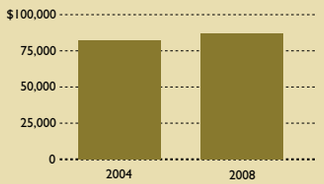


2008-2009

Silicon Valley	-35.2% ▼
U.S.	-36.8% ▼

Median Household Income

Inflation Adjusted



2004-2008

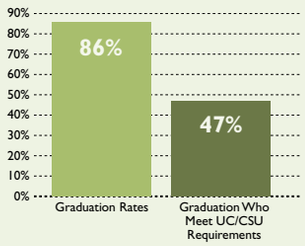
Silicon Valley	+5% ▲
California	+5% ▲
United States	+2% ▲

SOCIETY

The region has succeeded in some social gains but pressures continue in the areas of educational and health outcomes.

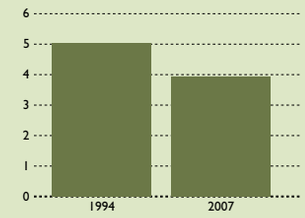
High School Graduation

Silicon Valley High Schools; 2007-2008



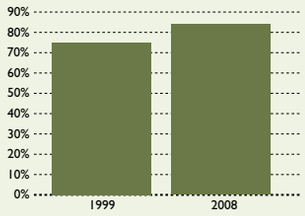
Infant Mortality Rate

Number of Deaths per 1,000 Live Births



Child Immunization Rate

Children at 24 Months of Age



Healthy People 2010 Objective

90% of children immunized by 24 months of age

Percentage of Population with Health Insurance Coverage

by Age Group, 2008

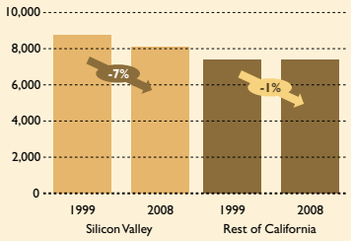
	SV	CA	U.S.
Under 18 years	**95%**	**89%**	**90%**
18-64 years	**85%**	**77%**	**80%**
65+ years	**98%**	**98%**	**99%**

PLACE

Though more progress is needed, Silicon Valley is making headway in improvements in environmental quality and resource efficiency. In terms of housing and commercial space, the financial crisis has hurt many but is also expanding opportunities as prices sink.

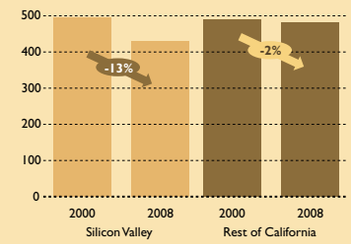
Electricity Consumption per Capita

kWh per person



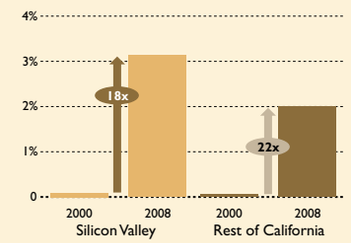
Fuel Consumption

Gallons per Capita



Alternative Fuel Vehicles

as a Percentage of Total Newly Registered Vehicles



Number of Residential Foreclosure Sales

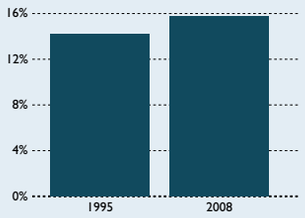
	2008	Q1-Q3 2009	Percent Change 08-09
SV	**8,894**	**5,404**	**-39%**
CA	**238,396**	**139,115**	**-42%**

GOVERNANCE

Since 2006, Silicon Valley has accounted for an increasing share of total state tax revenue.

Contribution to CA State Revenue

from Personal Income Tax



Silicon Valley - 2008

Percentage of State Population **7%**

Contribution to State Revenue from Personal Income Tax **16%**

Change in City Revenue Fiscal Year 05-06 to 06-07

Property Taxes **+12%** ▲

Sales Taxes **+0.5%** ▲

SPECIAL ANALYSIS

Silicon Valley's Economic Engine: *At Risk?*

When the current recession ends—and of course it will—how will Silicon Valley emerge? Will we take up our place again as one of the world's most dynamic economies, and a powerhouse for state and national GDP? Will we remain the epicenter of innovation?

Put another way, after the trauma of the global financial meltdown finally dissipates, will life in Silicon Valley be as it was before? The answer is not at all clear, and the outcome is by no means assured.

Indeed, there are clear warning signs suggesting Silicon Valley has entered a new phase of uncertainty, and that our competitive standing is at risk. What happens next depends on our response as a region, and that response may challenge the ingenuity of Silicon Valley's leaders and decision makers as never before:

- *We are no longer able to draw on the same level of foreign talent—which has been our lifeblood—as we have for the past several decades. The actions of our nation in the wake of 9/11, and the rise of other global regions, have made Silicon Valley less accessible and less attractive than it once was.*

- *Our traditional way of funding innovation—through locally-raised venture capital and public offerings—can no longer be taken as a given. Major structural shifts are underway in the funding community, while at the same time the federal government has re-emerged as the major investor in innovation and basic research. But Silicon Valley is not attracting significant shares of federal funding, and has not for some time.*

- *Silicon Valley is being slammed by forces outside the region and beyond our direct control, most notably, the malaise in our state government. California's budget crisis and the political dysfunction in Sacramento has direct and debilitating effects on our ability to prepare our workforce, provide crucial infrastructure, maintain our quality of life, and keep pace in the talent race with other regions.*

Our vulnerabilities don't mean Silicon Valley's best days are behind it. But they do suggest we're a region at risk.

The pages in this Special Analysis section are a companion to the 2010 Index, providing a deeper analytical treatment of the data presented there. In this Analysis we examine a series of key attributes comprising Silicon Valley's innovation "habitat." We also examine some important factors in the region's history that contributed to our current status and standing.

Specifically, we examine how four key considerations shape our habitat:

1. *Global connectivity*
2. *Our ability to attract talent*
3. *Ongoing advances in technology and innovation*
4. *The role of state and federal government*

Among our key findings:

- *Silicon Valley is increasingly connected to its global partners, and the region grows increasingly more dependent on foreign talent—particularly for filling science and engineering positions.*

- *Inflows from China and India continue to rise. Investment and collaboration between the Valley and those two nations is also on the rise, but India and China are experiencing rapid economic growth and as they do opportunities in those home countries will slow the flow of talent here.*

- *U.S. and California investment in higher education is declining at a time when talent becomes still more important to our region.*

- *Venture capital investment is shifting away from software and semiconductors and into biotechnology, energy, medical devices, and media. The level of investment continues to decline, and on the whole venture capitalists have not realized significant returns for the past decade.*

- *California state policy has become a hindrance to our innovation potential, not only because of our failure to invest, but also because our government is not addressing important problems.*

- *Patterns in federal procurement suggest Silicon Valley is losing ground to other states.*

Clearly, this is no time for complacency. While our region has enjoyed many advantages in the past, success in the future demands that we think beyond our prevailing assumptions, organize differently, draw upon still more ingenuity from our people, and forge new collaborations in order to compete globally.

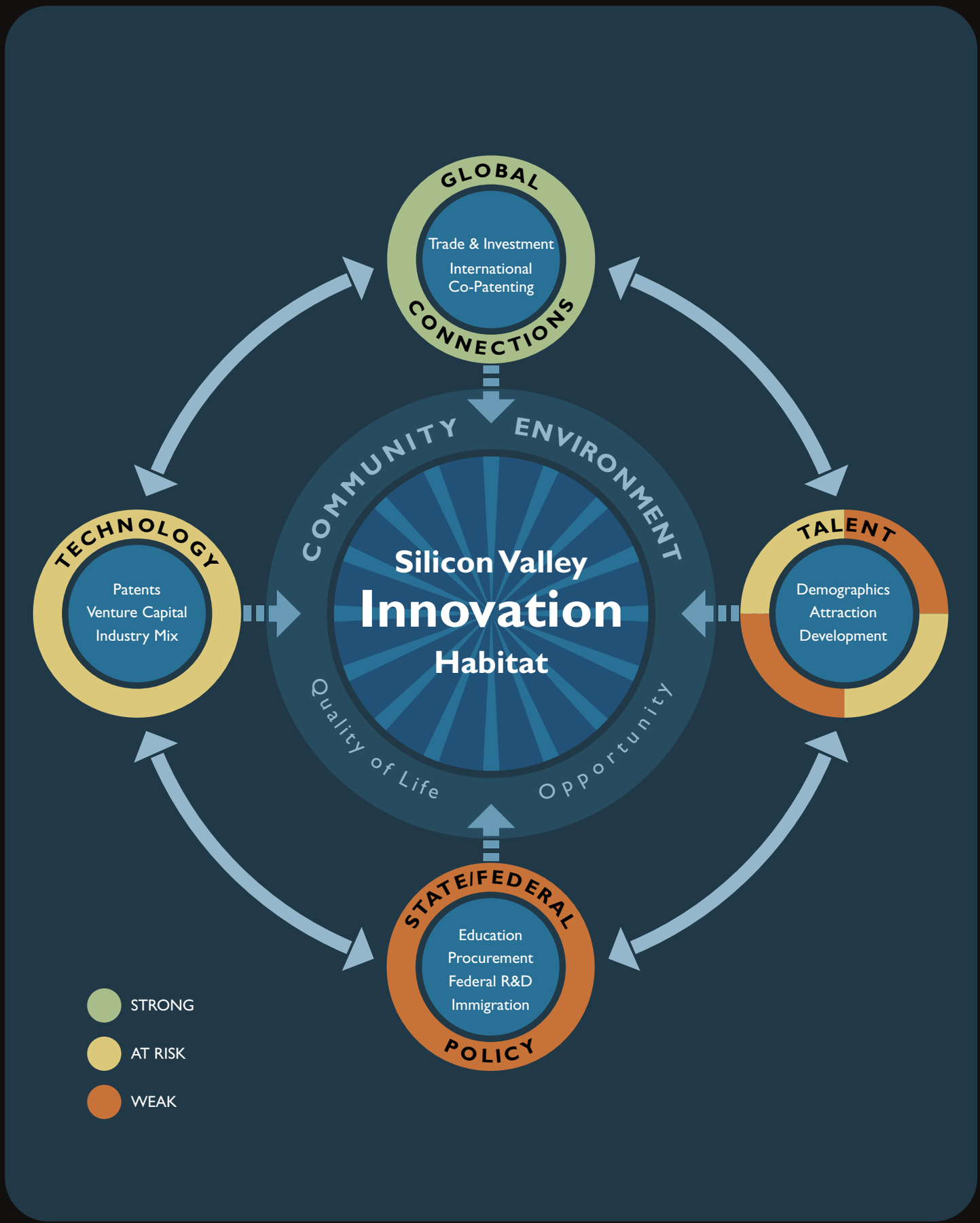
This Special Analysis examines a series of key attributes of Silicon Valley's innovation habitat as well as some important factors of the region's history that contributed to its position today. The region's innovation habitat is shaped by impulses through its global connections, shifts in talent attraction, advances in technology, and changes in state and federal policy. This analysis explores some of the important and shifting trends in each of these four areas.

What is our Innovation Habitat?

What gives the region its competitive edge, and its source for broader regional prosperity, goes beyond the strength of its companies and lies instead in the quality of its innovation habitat: the complex, dynamic network of interpersonal relationships across people, firms and institutions.

An innovative economy is the engine that produces economic opportunity and community revenues that make possible career mobility, investment in educational systems, development of community infrastructure and amenities, investments in environmental preservation, and other critical assets for regional vitality and quality of life.

However, for an innovative economy to produce regional vitality and quality of life, other factors are required. For example, an economy's potential is undermined if residents do not have the skills to participate in the growth of higher-level job opportunities, or if the community environment is seriously degraded and not viewed as an indispensable economic asset.



continued on page 58

Talent Flows and Diversity

PEOPLE

Population growth continues to be driven by foreign migration but slowed in 2009.

Why Is This Important?

Silicon Valley's most important asset is its people. They drive the economy and shape the quality of life of the region. We examine population growth as a function of migration (immigration and emigration) and natural population change (number of births minus number of deaths).

The region has benefited significantly from the entrepreneurial spirit of people drawn to Silicon Valley from around the country and around the world. In particular, immigrant entrepreneurs have contributed considerably to innovation and job creation in the region.[1] A region that can draw talent from other parts of the country and other regions of the world vastly improves its potential for closer integration with other innovative regions and thereby bolsters its global competitiveness.

Beyond the talent that we import, we look at Silicon Valley's future talent pool. The number of science, & engineering degrees awarded regionally helps us to gauge how well Silicon Valley is preparing talent for our driving, export-oriented clusters. A local workforce equipped with strong skills is a valuable resource for generating new ideas and innovative products and services.

How Are We Doing?

The population of the two-county region continued to grow in 2009 but at a slower pace than the two previous years. With a net increase of 33,170 people, Silicon Valley's population grew 1.3% in 2009. The region's growth continues to be driven by foreign immigration, despite decreasing 34 percent over the last year.

The percentage of the population that speaks a language other than English at home slowed modestly (-1%) for the first time in the region since 2004, while remaining steady statewide and increasing one percent nationally. However, as of 2008, nearly half of Silicon Valley residents (48%) spoke a language other than English at home, which was five percent higher than California and over twice as great as the United States. Among those who speak a language other than English at home, the largest proportion speak an Asian or Pacific Islander language (43%), just ahead of the share of Spanish speakers (39%).

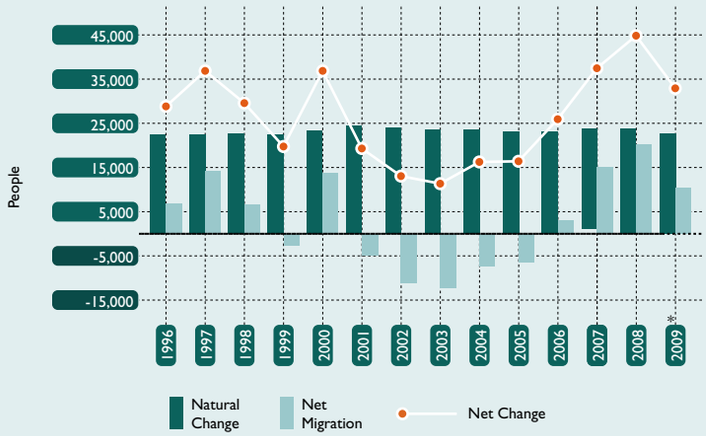
While the total number of Science and Engineering degrees has leveled off, the percentage conferred to foreign students has been sliding. In 2007, 16.6 percent of Science and Engineering degrees from Silicon Valley universities were conferred to foreign students. While this is higher than California (14.5%) and the U.S. (13.6%), the downward trend since 2003 continues similar to statewide and national trends. Nationally, rates have dropped two percent since 2004, and in California and Silicon Valley, rates slowed 1.6 percent and 1.5 percent respectively.

However, nationwide, the number of non-resident students earning Science and Engineering doctoral degrees has been rising. In the broader region, the number of these doctorate recipients increased by 40 percent between 2003 and 2007, while those earning Master's and Bachelor's Degrees declined during the same period – 17 percent and 10 percent respectively.

[1] AnnaLee Saxenian. 2002. Local and Global Networks of Immigrant Professionals in Silicon Valley. San Francisco: Public Policy Institute of California. See also, S. Anderson & M. Platzer. 2006. "American Made. The Impact of Immigrant Entrepreneurs and Professional on U.S Competitiveness." National Venture Capital Association.

Population Change

Components of Population Change
Santa Clara & San Mateo Counties



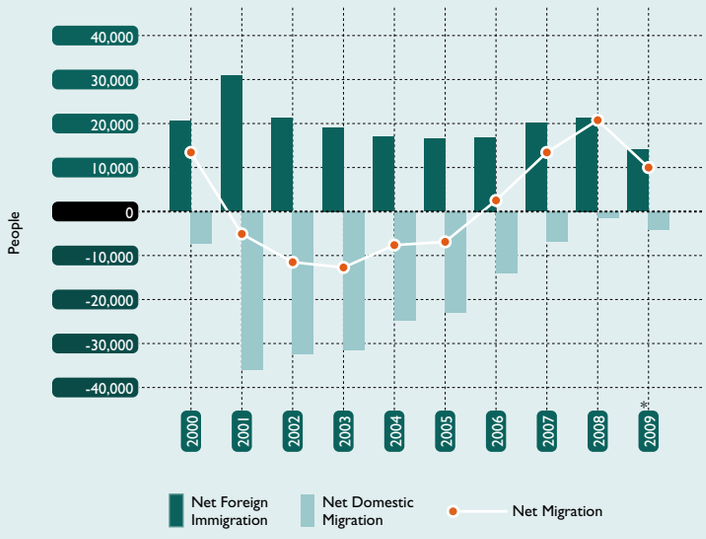
* Provisional population estimates for 2009
Data Source: California Department of Finance
Analysis: Collaborative Economics

Population Growth

	2008	2009	% Change
Silicon Valley	2,589,315	2,622,485	+1.3%
California	38,134,496	38,487,889	+0.9%

Net Migration Flows

Foreign and Domestic Migration
Santa Clara & San Mateo Counties



* Provisional population estimates for 2009
Data Source: California Department of Finance
Analysis: Collaborative Economics

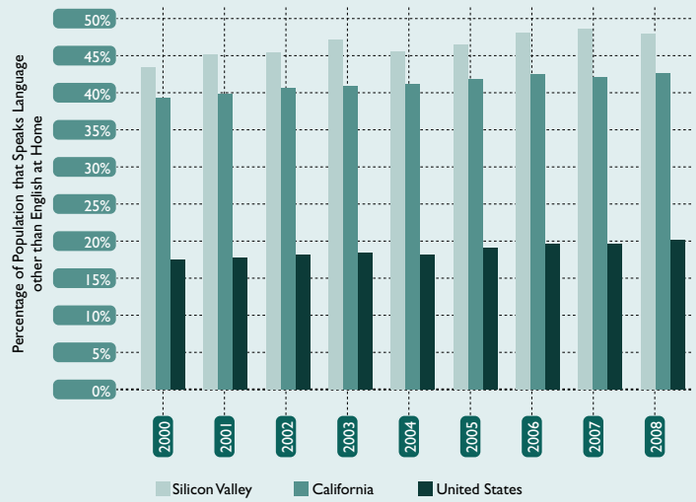
Net Migration
Silicon Valley
2009

Domestic	- 3,728
Foreign	+14,264

Foreign Language

Percentage of Population that Speaks Language other than English at Home

Santa Clara & San Mateo Counties, California, U.S.

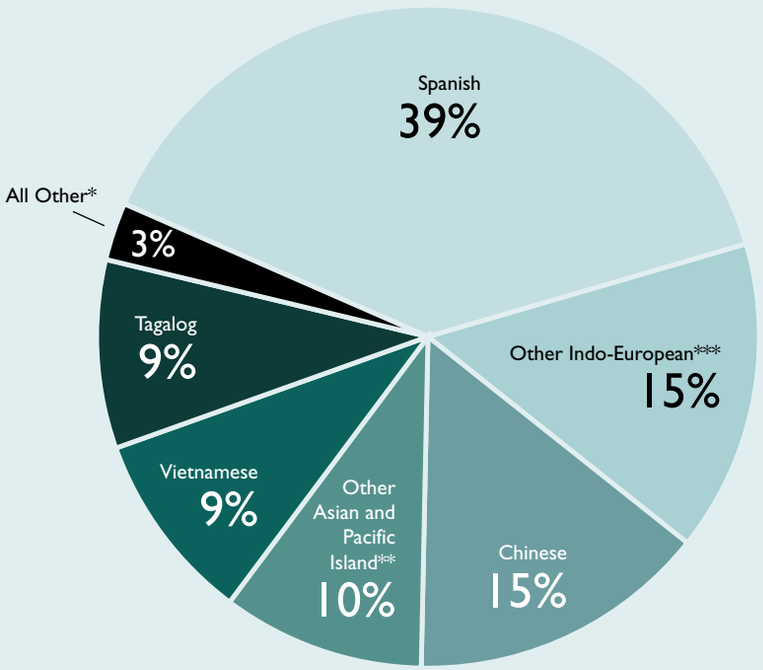


Data Sources: U.S. Census Bureau, American Community Survey
Analysis: Collaborative Economics

Foreign Language

Language Spoken at Home for the Population 5 Years and Over

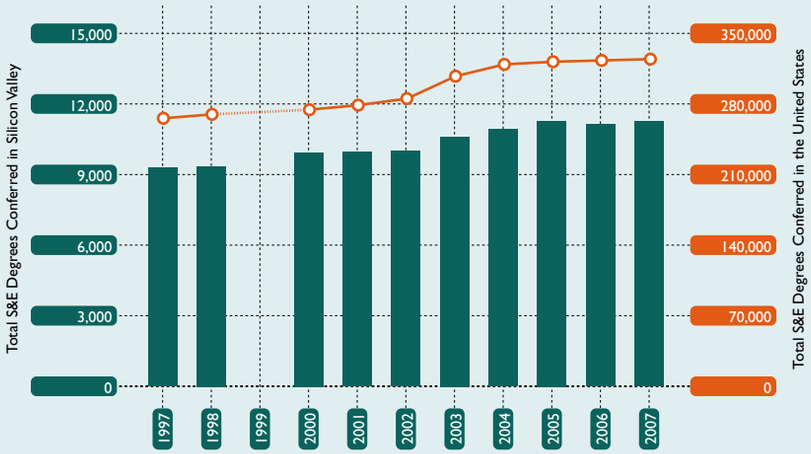
Santa Clara & San Mateo Counties, 2008



*All Other includes Navajo, other native North American languages, Arabic, Hebrew, African languages, and other, unspecified languages.
**Other Asian and Pacific Island includes Japanese, Korean, Mon Khmer, Cambodian, Miao, Hmong, Thai, Laotion, and other Asian Languages.
***Other Indo-European includes French (including Patois, Cajun, Creole), Italian, Portuguese (including Creole), Scandinavian languages, Greek, Russian, Polish, Serbo-Croatian, other Slavic languages, Armenian, Persian, Gujarathi, Hindi, Urdu, other Indio languages, and other Indo-European languages.
Note: Does not include English-only households
Data Sources: U.S. Census Bureau, American Community Survey
Analysis: Collaborative Economics

Total Science & Engineering Degrees Conferred

Universities in and near Silicon Valley, and the U.S.

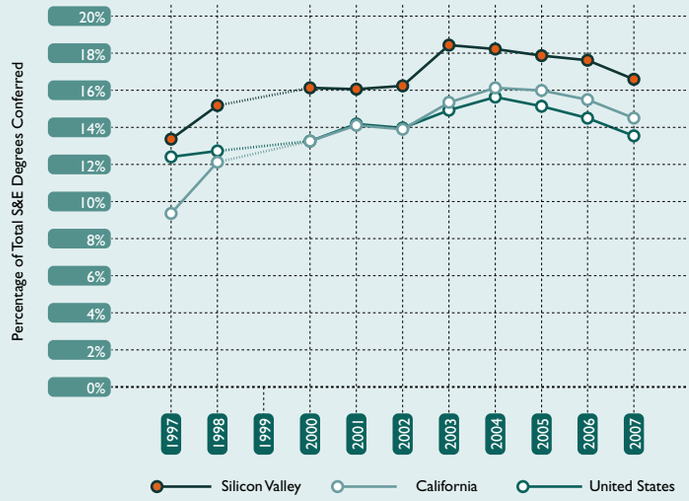


Note: Data are based on first major and include bachelors, masters and doctorate degrees. Data for 1999 is not available.
Data Source: National Center for Educational Statistics, IPEDS
Analysis: Collaborative Economics

Foreign Students

Percentage of Science & Engineering Degrees Conferred to Temporary Nonpermanent Residents

Silicon Valley, California, U.S.



Note: Data are based on first major and include bachelors, masters and doctorate degrees. Data for 1999 is not available.
Data Source: National Center for Educational Statistics, IPEDS
Analysis: Collaborative Economics

Percentage of S&E Degrees Conferred to Temporary Nonpermanent Residents

	2003	2007	% Change
Silicon Valley	18.4%	16.6%	**-1.8%**
California	15.3%	14.5%	**-0.8%**
United States	14.7%	13.6%	**-1.1%**

Employment

Since the fall of 2008, the region has been hit hard by employment losses.

Why Is This Important?

Tracking job gains and losses is a basic measure of economic health. Shifts in employment across industries suggest structural changes in Silicon Valley's economic composition. Over the course of the business cycle, employment growth and decline across industries can be cyclical but the permanent changes reflect how the region's industrial mix is changing. Recent attention has been focused on the growing activities in the "green economy." While business establishment-based employment provides the broader picture of the region's economy, observing the employment and unemployment rates of the population residing in the Valley reveals the status of the immediate Silicon Valley-base workforce.

How Are We Doing?

Silicon Valley was slower than the nation to feel the blows of employment losses in the recent economic downturn. Job losses of residents in the region have mirrored national losses since the outset of the recession, with declines of 5.4 percent in the two counties and 5.7 percent nationwide between December 2007 and 2009. However, most of the region's losses were sustained in the last twelve months as regional residential employment slipped 5.8 percent and the nation, 3.8 percent between December 2008 and 2009.

In view of total employment in the broader Silicon Valley region (based on data including jobs held by people who live outside the region and for which there is a longer reporting lag), the region lost roughly 90,000 jobs between the second quarter 2008 and 2009 bringing total employment down to 2005 levels.

The combined unemployment rate for San Mateo and Santa Clara Counties increased 3.3 percent between December 2008 and 2009. The region has closely trailed the state, and the rates of both are at least one percent above the national rate.

When employers stop hiring, people look for other means of employment such as through temporary employment services or through consulting. In the San Jose Metro Area for example, jobs in Employment Services have increased 23 percent since April 2009. Between 2002 and 2007, the number of consultants, reported as nonemployer firms, has grown by 25 percent.

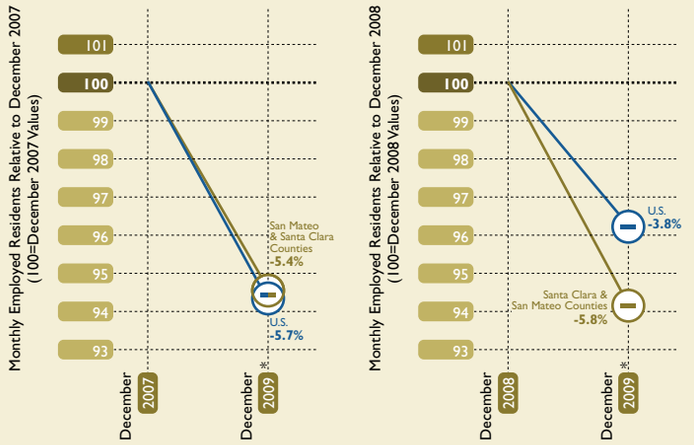
While total employment in the broader Silicon Valley region increased by 0.8 percent (10,500 jobs) between 2007 and 2008, all the major areas of economic activity experienced employment losses in the first half of 2009. Other Manufacturing suffered the largest percent losses with a ten percent drop. In absolute numbers, Community Infrastructure shed the most losing 33,500 jobs.

Since 1995, jobs in the two counties in businesses that provide products and services that reduce our dependence on fossil fuels, improve resource conservation, and reduce pollution have increased by more than 50 percent while these business establishments have grown by nearly 45 percent. Just between January 2007 and 2008, these green jobs expanded by eight percent.

While these green jobs number roughly 14,000 (comparable to total employment in Medical Devices), they are distributed across a wide range of industries. Jobs in green transportation have more than tripled from 2004 to 2008. Similarly, jobs in energy efficiency have increased by nearly 60 percent.

Change in Residential Employment

Santa Clara & San Mateo Counties, and the United States

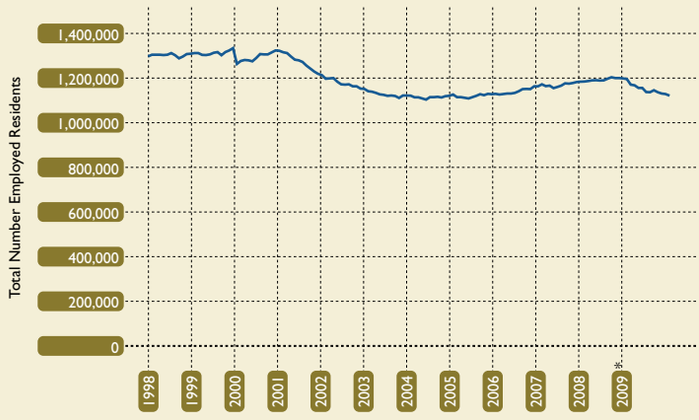


*Data for December 2009 is preliminary
Note: Data is not seasonally adjusted.
Data Source: U.S. Bureau of Labor Statistics, Current Population Survey (CPS) and Local Area Unemployment Statistics (LAUS)
Analysis: Collaborative Economics

Employment

Total Employed Residents by Month

San Mateo & Santa Clara Counties



*Data for December 2009 is preliminary
Note: Data is not seasonally adjusted.
Data Source: U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics (LAUS)
Analysis: Collaborative Economics

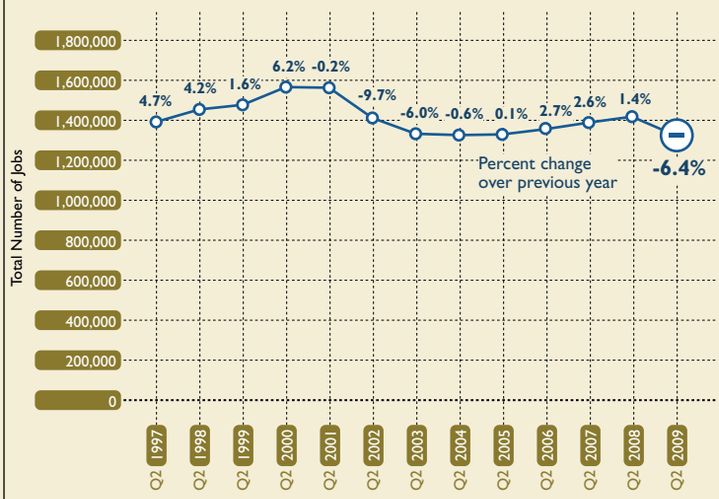
Residential Employment

	2007-09	2008-09
Silicon Valley	-5.4%	-5.8%
United States	-5.7%	-3.8%

MY

Quarterly Job Growth

Number of Silicon Valley Jobs in Second Quarter with Percent Change over Prior Year



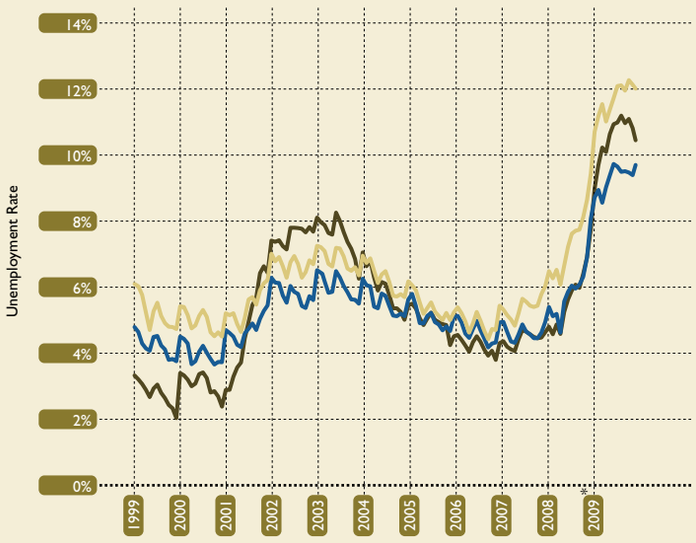
Data Source: California Employment Development Department, Labor Market Information Division, Quarterly Census of Employment and Wages
Analysis: Collaborative Economics

Percent Change in Jobs Q1 2008 – Q1 2009

Silicon Valley: -4.3%	Rest of CA: -4.3%	United States: -3.7%

Unemployment Rate

San Mateo & Santa Clara Counties, California and the United States



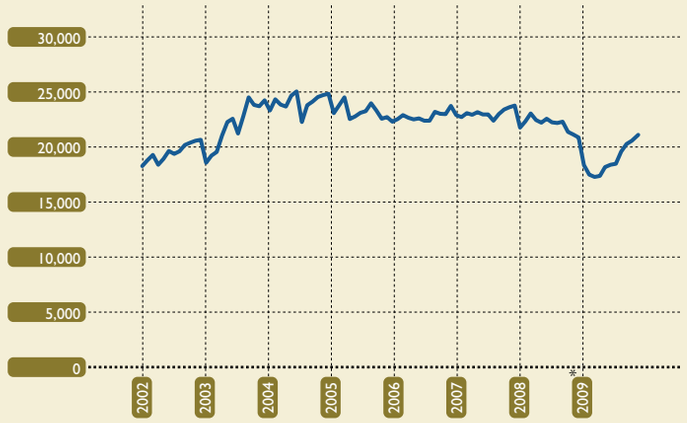
*Data for December 2009 is preliminary
Note: Data is not seasonally adjusted.
Data Source: U.S. Bureau of Labor Statistics, Current Population Survey (CPS), Local Area Unemployment Statistics (LAUS)
Analysis: Collaborative Economics

Employment

Employment Services

Total Number of Jobs by Month

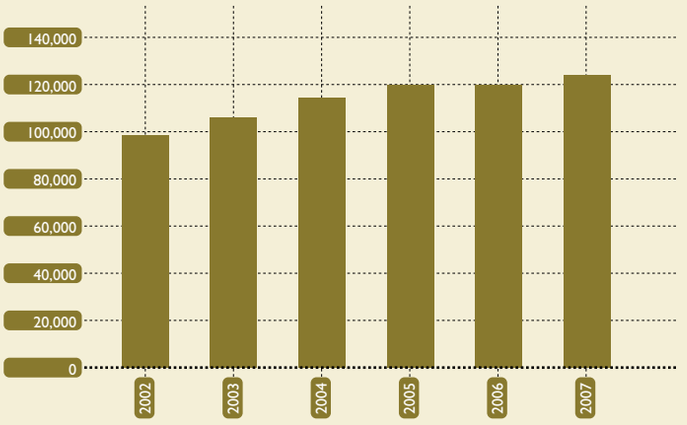
San Jose-Sunnyvale-Santa Clara Metropolitan Statistical Area



*Data for December 2009 is preliminary
Note: Data includes employment for the Employment Services Industry, and is not seasonally adjusted
Data Source: California Employment Development Department, Labor Market Information Division, Current Employment Statistics Survey (CES)
Analysis: Collaborative Economics

Nonemployer Firms

San Jose-Sunnyvale-Santa Clara Metropolitan Statistical Area

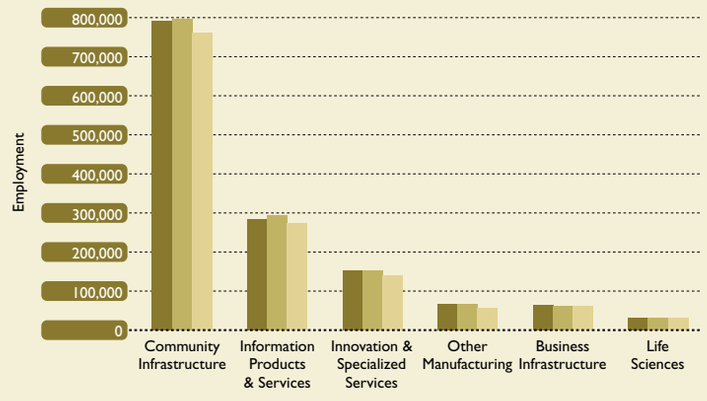


Data Source: U.S. Census Bureau, Nonemployer Statistics
Analysis: Collaborative Economics

Major Areas of Economic Activity

Average Annual Employment

Silicon Valley



Data Source: California Employment Development Department, Labor Market Information Division, Quarterly Census of Employment and Wages
Analysis: Collaborative Economics

Silicon Valley Employment Growth by Major Areas of Economic Activity

Percent Change Q2 2008–Q2 2009

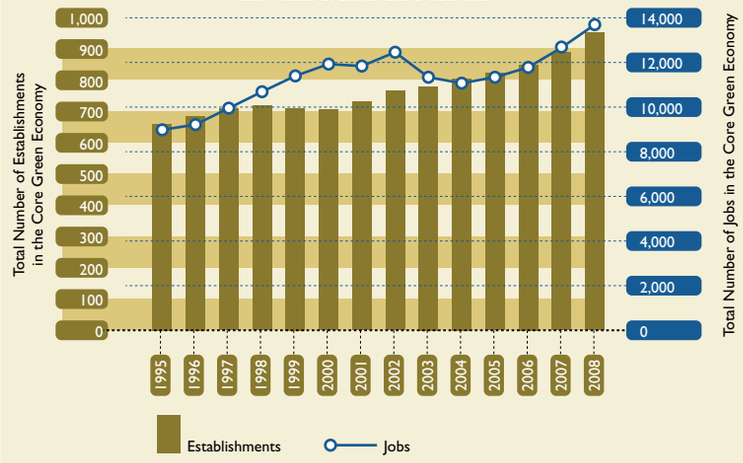
Information Products & Services	-7.7%
Life Sciences	-5.8%
Community Infrastructure	-5.5%
Innovation & Specialized Services	-7.7%
Other Manufacturing	-10.3%
Business Infrastructure	-5.3%
TOTAL EMPLOYMENT	**-6.4%**

MY

Green Business Establishments & Jobs

Total Business Establishments and Jobs in the Core Green Economy

San Mateo & Santa Clara Counties



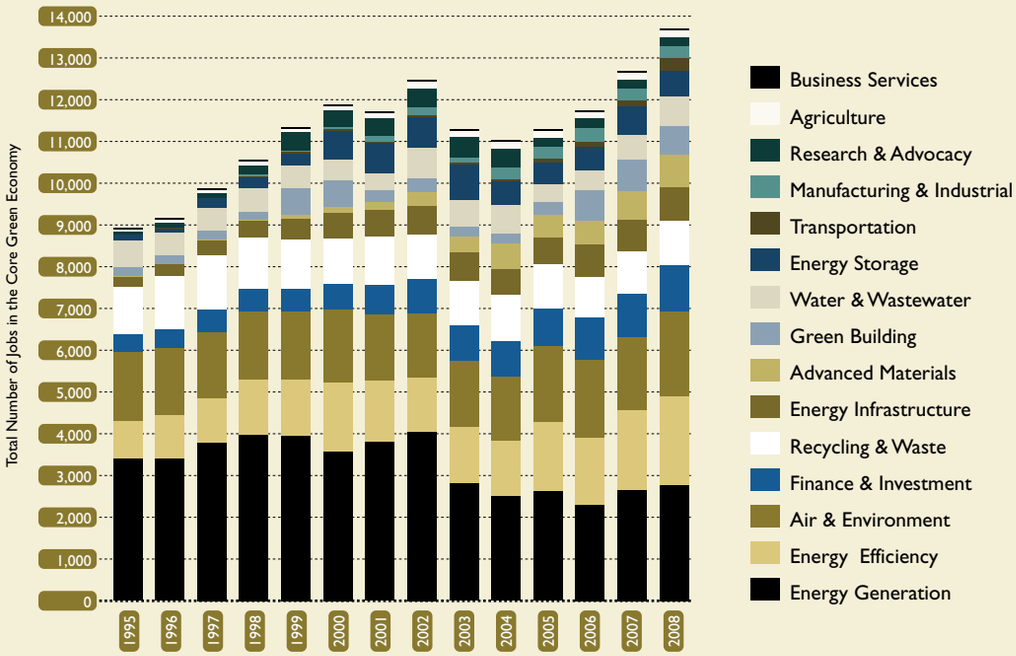
Data Source: Green Establishment Database
Analysis: Collaborative Economics

Green Growth	1995–2008	2004–2008
Jobs	+53%	+24%
Establishments	+45%	+18%

Total Jobs in the Core Green Economy

by Green Segment

San Mateo & Santa Clara Counties



Note: The decline in Energy Generation jobs from 2002-2003 can be attributed to layoffs by a semiconductor establishment identified as a manufacturer of solid state photovoltaic devices.
Data Source: Green Establishment Database
Analysis: Collaborative Economics

Income

Incomes are down and households are feeling the pressure.

ECONO

Why Is This Important?

Earnings growth is as important a measure of Silicon Valley's economic vitality as job growth. A variety of income measures presented together provides an indication of regional prosperity and the distribution of prosperity.

Real per capita income rises when a region generates wealth faster than its population increases. The median household income is the income value at the middle of all income values. Household income distribution tells us more about concentrations of income, and if economic gains are reaching all members of the region. Tracking trends in bankruptcy filings and food stamp participation provides an additional indication for economic stress in the region.

How Are We Doing?

Nationwide, real per capita income has been on the decline since 2007. Personal income, which includes interest and dividend income, is roughly 50 percent higher in Silicon Valley, and from 2007 to 2009, real per capita income decreased five percent in the region and four percent in both the U.S. and California.

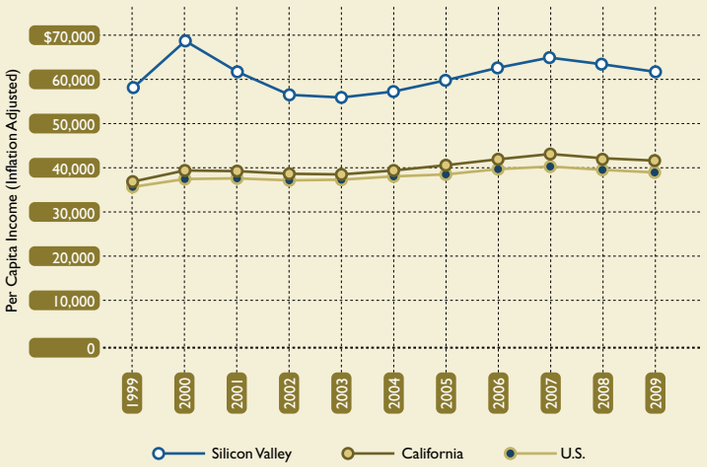
Through 2008, the region's median household income held steady while declining by two percent in California and 1.3 percent nationally. This is in part a reflection of the fact that the region was slower to post job losses in 2008 than the rest of the country.

Silicon Valley's median household income of $87,000 is 69 percent higher than that of the U.S. and 44 percent higher than that of the state (off course, our cost of living is also higher than state and national averages). At least through 2008, the percentage of households earning $100,000 or more a year has been on the rise nationwide. In the region, these households make up 44 percent, more than double the national rate, but the growth of this segment since 2002 has been similar, expanding eight percent in Silicon Valley and the U.S. and nine percent in California. Households earning less than $35,000 a year represent 18 percent of the region's households, and this segment has decreased at a slower rate than in the state or nation. Since 2002, the percentage of middle-income households has shrunk six percent in Silicon Valley while remaining stable at roughly 43 percent in California and 45 percent in the United States.

Evidence of increasing pressure on the region's households can be observed in rising personal bankruptcy rates and residents receiving food stamps. Since 2007, the non-business bankruptcy rate has increased from one for every 1,000 residents to 2.6 in the first half of 2009. The filings rates per 1,000 residents were 4.5 in California and 3.7 in the U.S. Nearly four percent of Silicon Valley residents received food stamps in 2009 representing an increase of less than one percent from 2007. Statewide, nearly eight percent of residents received food stamps, up two percent from 2007.

Real Per Capita Income

2008 Dollars — Santa Clara & San Mateo Counties and U.S.



Note: Personal income is defined as the sum of wage and salary disbursements (including stock options), supplements to wages and salaries, proprietors' income, dividends, interest, and rent, and personal current transfer receipts, less contributions for government social insurance

Data Source: Moody's Economy.com

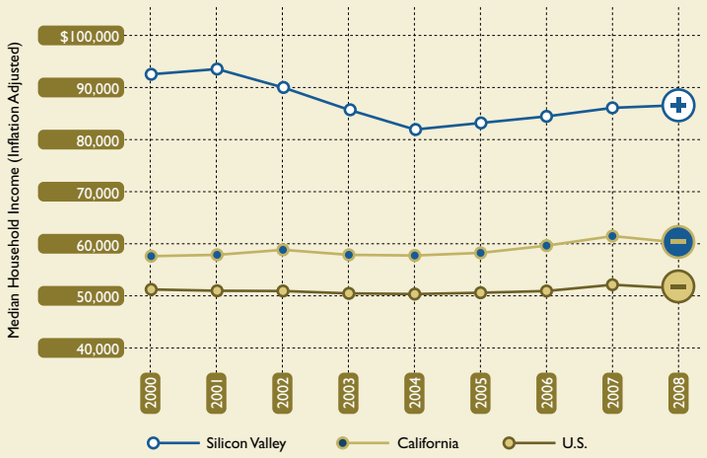
Analysis: Collaborative Economics

Percent Change of per Capita Income

	2003–2009	2007–2009	
Silicon Valley	**+10.5%**	**–5.0%**	⊖
California	**+7.5%**	**–3.6%**	⊖
United States	**+4.2%**	**-3.9%**	⊖

Median Household Income

Santa Clara & San Mateo Counties, California and U.S.



Note: Household income includes wage or salary income; net self-employment income; interest, dividends, or net rental or royalty income from estates and trusts; Social Security or railroad retirement income; Supplemental Security income; public assistance or welfare payments; retirement, survivor, or disability pensions; and all other income; excluding stock options.

Data Source: U.S. Census Bureau, American Community Survey

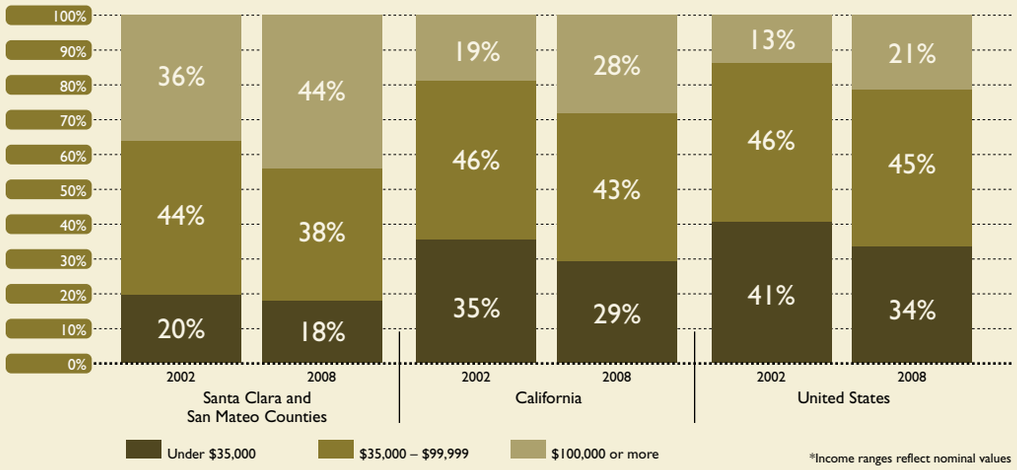
Analysis: Collaborative Economics

Percent Change in Median Household Income
2007-2008

- ⊕ Silicon Valley **0.6%**
- ⊖ California **-2.0%**
- ⊖ United States **-1.3%**

Income Distribution

Distribution of Households by Income Ranges



Note: Income ranges reflect nominal values. Household income includes wage or salary income; net self-employment income; interest, dividends, or net rental or royalty income from estates and trusts; Social Security or railroad retirement income; Supplemental Security income; public assistance or welfare payments; retirement, survivor, or disability pensions; and all other income; excluding stock options.

Data Source: U.S. Census Bureau, American Community Survey

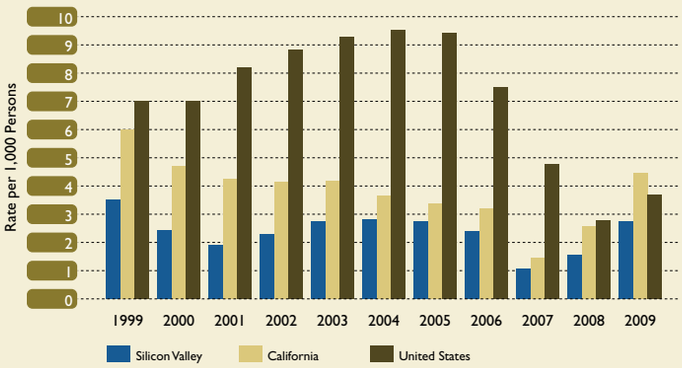
Analysis: Collaborative Economics

Bankruptcy Filings

Rate of Total Non-Business Bankruptcy Fillings Per 1,000 Persons

Silicon Valley, California and U.S.

Quarter 2: 1999 to 2009



Note: All data based on Quarter 2 figures

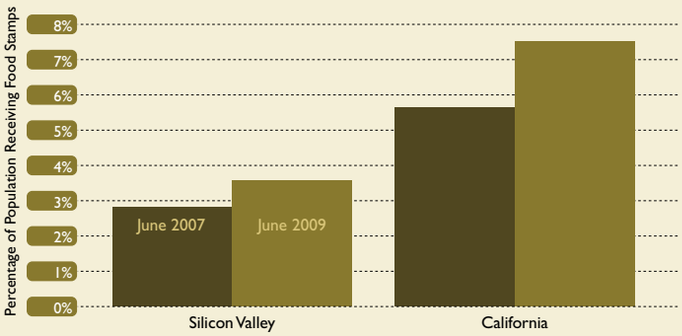
Data Source: Administrative Office of the U.S. Bankruptcy Courts; RAND Corporation; California Department of Finance; U.S. Census Bureau

Analysis: Collaborative Economics

Food Stamp Usage

Percentage of Population Receiving Food Stamps

Santa Clara and San Mateo Counties, California and U.S.



Data Source: New York Times, Food Stamp Usage Across the Country; U.S. Department of Agriculture; U.S. Census Bureau, Population Estimates

Analysis: Collaborative Economics

Food Stamp Usage Percent Difference

June 2007 to June 2009

Silicon Valley	+0.8%
California	+1.9%

Innovation

Silicon Valley continues to invent, invest and transform - laying the foundation for the next rebound.

Why Is This Important?

Innovation drives the economic success of Silicon Valley. More than just in technology products, innovation includes advances in business processes and business models. The ability to generate new ideas, products and processes is an important source of regional competitive advantage. To measure innovation, we examine the investment in innovation, the generation of new ideas, and the value-added across the economy.

Additionally, tracking the areas of venture capital investment over time provides valuable insight into the region's longer-term direction of development. The activity of mergers and acquisitions and initial public offerings indicate that a region is cultivating innovative and potentially high-value companies. The movement of business establishments to and out of the region provides some insight into the continued attractiveness of the region for businesses.

How Are We Doing?

A key indicator for the overall health of the region's economy is productivity. Measured as gross regional product per worker, productivity (i.e. value added per worker) slowed in 2007 and 2008 and then shot up four percent in 2009. This recent growth is based in large part on productivity gains due to companies cutting jobs and work hours. The sustainability of these gains in Silicon Valley will depend on many different factors. Since 2001, value added per employee has increased by 12 percent in Silicon Valley, 18 percent in California and 14 percent in the United States.

The number of patents registered in Silicon Valley declined less than one percent in 2008, while the total number of U.S. patents decreased by 2.6 percent. Despite the decline, Silicon Valley's percentage of total registrations in California and the U.S. increased between 2007 and 2008.

Overall, Silicon Valley's patent registrations in 2008 were similar to volumes in the prior year; however, when examined by technology, registrations are picking up in technologies related to electronic communication, optics, computing and electricity generation. Between 2000 and 2008, patents related to Computers, Cameras, Optics, & Other Devices increased by 57 percent, Electricity Generation & Circuitry increased by 26 percent, and Engines & Pumps increased by 53 percent.

Patent registrations in green technology in Silicon Valley are growing. During the recent period 2006-2008, more than one hundred green technology patents were registered in the region, increasing by seven percent over the prior three-year period. Silicon Valley accounts for an increasing percentage of green patent activity nationwide. Over the recent period, 12 percent of U.S. solar patent registrations were registered in the region, up from three percent in the mid-nineties.

While total investment has been down in 2009 (with an uptick in the third quarter), the distribution of investment across industries offers valuable insight into how Silicon Valley's industry mix is changing. Since 2002, the software industry has continued to attract the largest percentage of total venture capital investment in the region; however, it has dropped from 25 percent to 20 percent as opportunities in other industries grow. Venture capital investment in networking and equipment has been on a downward trend since 2002, when the industry ranked second behind software; however, investment in networking and equipment did increase by 13 percent between 2008 and 2009.

Over most of the period, semiconductors attracted the next largest investment share following software. In 2008, it was displaced by biotechnology and medical devices, while in 2009 industrial/energy took the second spot behind software. Venture capital investment in the areas of industrial/energy, medical devices, and biotechnology have now outpaced investment in semiconductors.

After peaking at $1.9 billion in 2008, cleantech venture capital investment dropped to $1.2 billion in 2009, a five percent increase over 2007 values. In 2009, Silicon Valley accounted for 55 percent of California investments and 19 percent of United States investments. While the region accounted for the same percentage of California investments as it did in 2008, its share of total U.S. investments decreased 12 percent. The bulk of investments were in energy generation (41%) and energy efficiency (26%) with values increasing in energy efficiency by 121 percent over last year.

The world market for initial public offerings showed some life in 2009 up 44 percent from the prior year. Silicon Valley's single offering in 2009 was Fortinet, a network security appliances company.

The number of merger and acquisition deals in Silicon Valley during the first three quarters of 2009, represented the same percentage of total deals in California (50%) and the U.S. (12%) for 2008.

Silicon Valley has continued to generate new companies and attract existing companies. Between January 2007 and 2008, the region witnessed a net gain of approximately 9,500 establishments, twice the average annual net gain over the whole period. On average, between 1995 and 2008, Silicon Valley gained approximately 15,400 establishments due to businesses opening or moving in, while losing an average of approximately 10,700 establishments due to businesses closing or leaving the region.

The movement of the region's business establishments is primarily contained within California.[2] In 2008, 73 percent of businesses moving into Silicon Valley moved from other regions in California while 68 percent of businesses moving out of Silicon Valley remained in California.

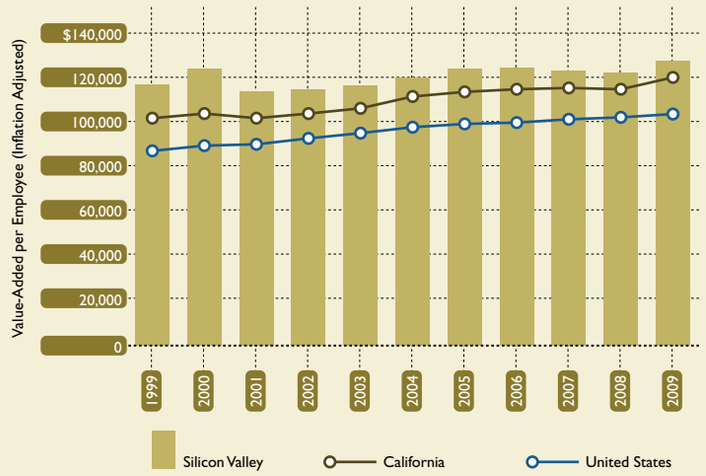
[2] This work parallels the findings of Junfu Zhang with the Public Policy Institute of California. In the 2003 "High tech Start-Ups and Industry Dynamics in Silicon Valley," Zhang found that 84 percent of establishments relocating out of Silicon Valley between 1990 and 2001 remained within California.

MY

Value Added

Value Added per Employee

Santa Clara & San Mateo Counties, California and U.S.



Data Source: Moody's Economy.com
Analysis: Collaborative Economics

Percent Change in Value Added per Employee

	2008–2009	1990–2009
Silicon Valley	**+3.8%**	**+26.1%**
California	**+4.2%**	**+25.3%**
United States	**+1.2%**	**+36.0%**

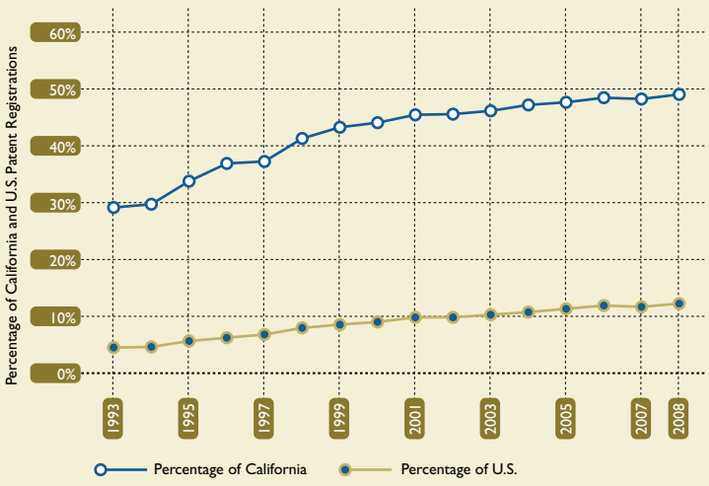
Patent Registrations

Top Cities for Patents

Registered Patents–2008

San Jose	**2,163**
Austin	1,479
San Diego	1,051
Sunnyvale	**971**
San Francisco	811
Boise	798
Palo Alto	**798**
Houston	688
Fremont	**686**
Seattle	646
Cupertino	**640**
Mountain View	**600**
Redmond	551
Portland	540
Santa Clara	**479**

Silicon Valley's Percentage of U.S. and California Patents



Data Source: U.S. Patent and Trademark Office
Analysis: Collaborative Economics

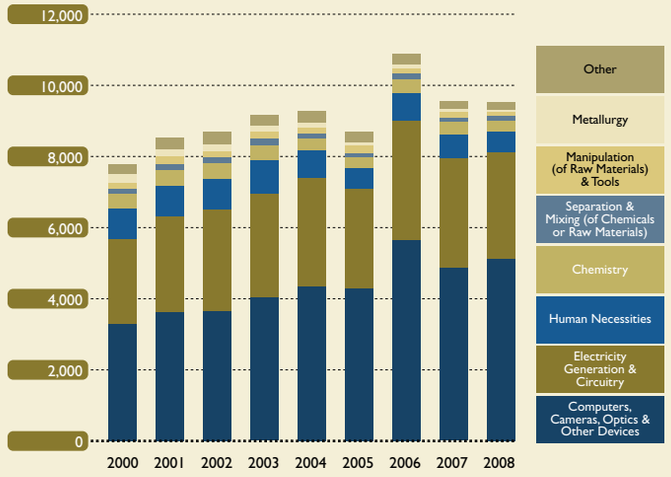
Number of Patents–2008

Silicon Valley	**9,474**
California	**19,288**
United States	**77,888**

Patent Registrations

By Technology Area

Silicon Valley



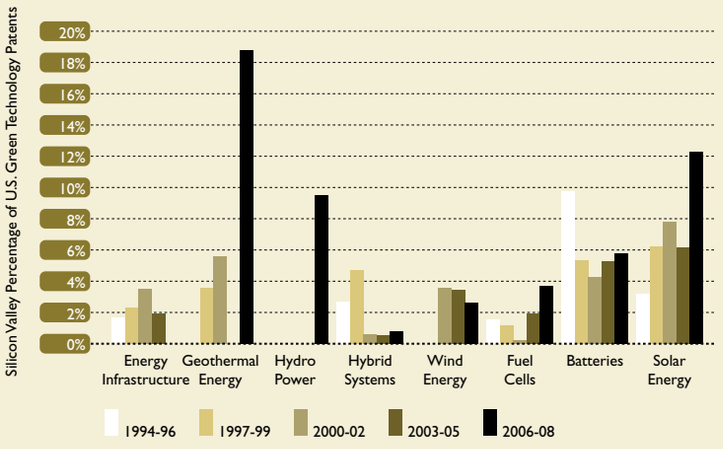
Note: Other includes Micro/Nano Tech, Textiles & Paper, Synthetic Chemistry, Weapons & Explosives, Construction & Excavation, Nuclear Physics & Engineering, Engineering Materials, Engines & Pumps, Lighting & Heating/Cooling, Printing & Writing Instruments, Transportation.

Data Source: U.S. Patent and Trademark Office

Analysis: Collaborative Economics

Patents Registered by Green Technology

Silicon Valley Percentage of U.S. Green Technology Patents



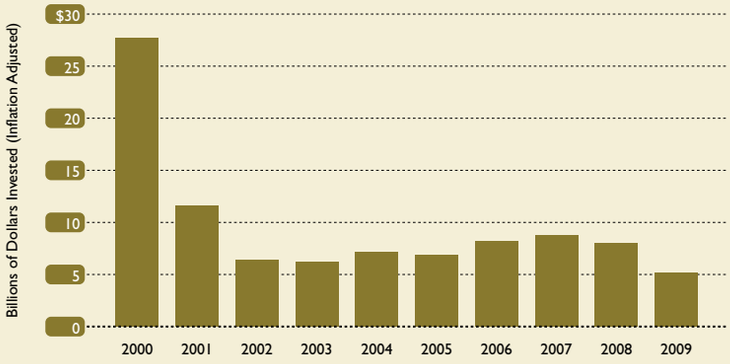
Data Source: 1790 Analytics, Patents by Technology; USPTO Patent File

Analysis: Collaborative Economics

Venture Capital Investment

Billions of Dollars Invested

Silicon Valley

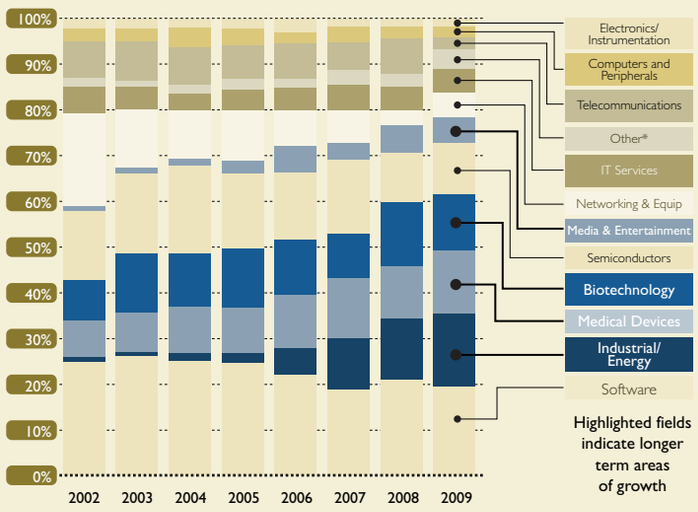


Data Source: PricewaterhouseCoopers/National Venture Capital Association MoneyTree™ Report, Thomson Reuters

Analysis: Collaborative Economics

Venture Capital by Industry

Venture Capital Investment in Silicon Valley by Industry



*Other includes Financial Services, Retailing/Distribution, Business Products & Services, Consumer Products & Services, Healthcare Services, and other unclassified deals

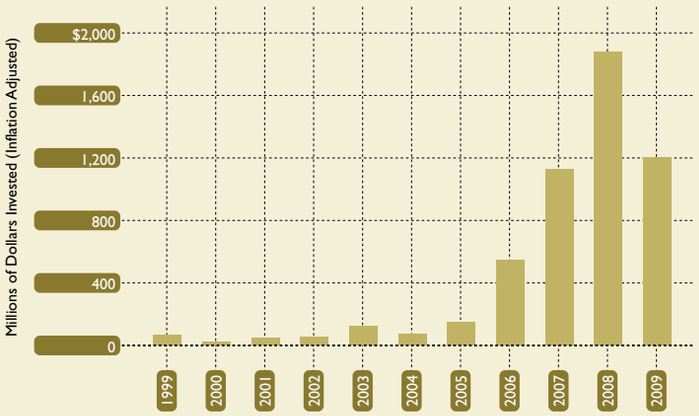
Data Source: PricewaterhouseCoopers/National Venture Capital Association MoneyTree™ Report, Data: Thomson Reuters
Analysis: Collaborative Economics

Top Growers Since 2002

- **Industrial/Energy**
- **Media & Entertainment**
- **Biotechnology**
- **Medical Devices**

Venture Capital Investment in Clean Technology

Millions of Dollars Invested
Silicon Valley



Data Source: Cleantech Group™, LLC (www.cleantech.com)
Analysis: Collaborative Economics

Cleantech Investment Growth

	2007-09	2008-09
Silicon Valley	**+5%**	**-37%**
Rest of CA	**+27%**	**-35%**

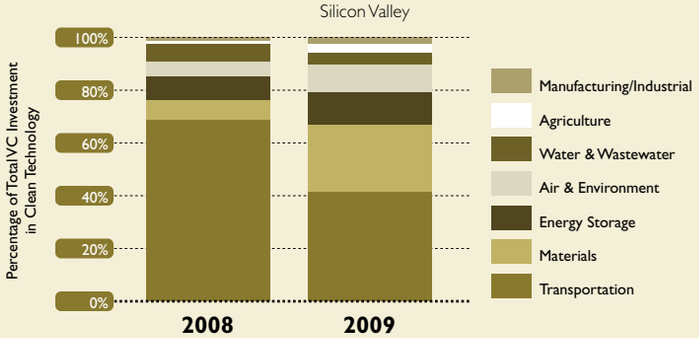
Silicon Valley Cleantech VC, 2009

55% of California

19% of the United States

VC Investment in Clean Technology by Segment

Percentage of Total VC Investment in Clean Technology
Silicon Valley

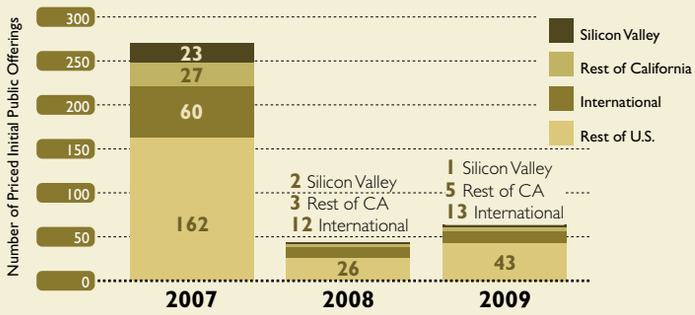


Data Source: Cleantech Group™, LLC (www.cleantech.com)
Analysis: Collaborative Economics

Initial Public Offerings

Total Number of IPO Pricings

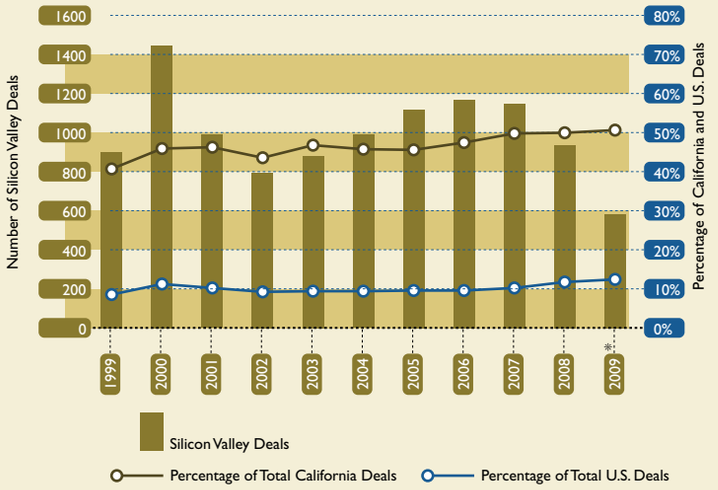
Silicon Valley, California, U.S., and International Companies



Note: Location based on corporate address provided by IPOhome.com
Data Source: Renaissance Capital's IPOhome.com
Analysis: Collaborative Economics

Mergers & Acquisitions

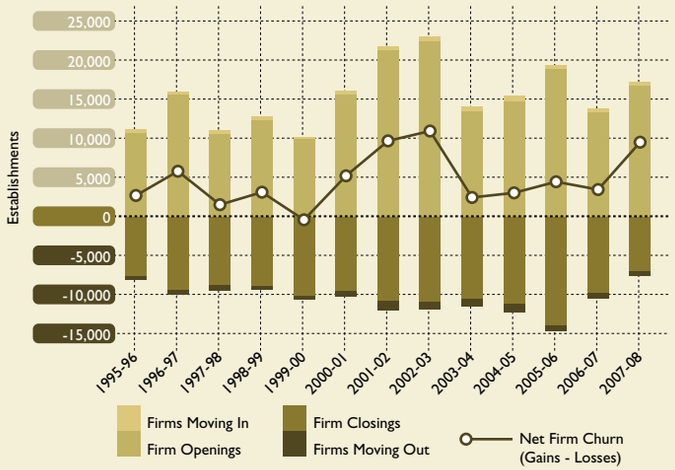
Number of Deals in Silicon Valley, California, and U.S.



*Includes data for Quarters 1-3, 2009
Note: Deals include Buyers and Sellers
Data Source: Factset Mergerstat LLC
Analysis: Collaborative Economics

Establishment Churn

San Mateo & Santa Clara Counties



Data Source: National Establishment Time Series Database (NETS)
Analysis: Collaborative Economics

Establishment and Job Churn

San Mateo & Santa Clara Counties

Percent of Total	Establishments		Jobs	
	1995-1996	2007-2008	1995-1996	2007-2008
From Rest of California	**88%**	**73%**	**73%**	**54%**
From Rest of U.S.	**12%**	**27%**	**27%**	**46%**
To Rest of California	**82%**	**68%**	**55%**	**79%**
To Rest of U.S.	**18%**	**32%**	**45%**	**21%**

Preparing for Economic Success

Graduation rates are making modest gains, but fewer graduates are meeting UC/CSU requirements

Why Is This Important?

The future success of the region's young people in a knowledge-based economy will be determined largely by how well elementary and secondary education in Silicon Valley prepares its students for higher levels of education.

How well the region is preparing its youth for postsecondary education can be observed in graduation rates and the percentage of graduates completing courses required for entrance to the University of California (UC) or California State University (CSU). Likewise, high school dropouts are significantly more likely to be unemployed and earn less when they are employed than high school graduates. Indicators in early education, such as reading proficiency, are highly correlated with later academic success.

How Are We Doing?

The region experienced a modest improvement in the graduation rate of one percent, but a slippage of five percent in the share of graduates who met the UC/CSU requirements. The region's overall graduation rate for the 2007-2008 school year was 86 percent - up from 85 percent the previous year. Graduation rates by ethnicity indicate that Asian (93%), White (92%) and Filipino (90%) groups had the highest graduation rates with Hispanics having the lowest at 71 percent.

Forty-seven percent of Silicon Valley graduates met UC/CSU requirements in 2007-2008, down from 52 percent the previous year. Exceeding the average, 68 percent of Asians and 52 percent of white students met the UC/CSU requirements.

Falling two percent over the prior year, the overall dropout rate for Silicon Valley for the 2007-2008 school year was 10 percent. All ethnic groups reported falling dropout rates except African American and Filipino students. The drop out rate among Hispanics (the largest ethnic group) dropped from 22 to 19 percent.

The percentage of 8th graders enrolled Algebra II has remained relatively constant over the last six years. Enrollment is slightly higher in the region (0.2%) than statewide (0.15%). Of those tested in Silicon Valley, 72 percent scored in the advanced level, a drop of six percent from the prior year, and eleven percent scored basic or below level, an increase of three percent. Comparatively, up 13 percent from the previous year, 54 percent of students tested statewide scored at the advanced level while 21 percent scored at basic or below level, a decrease of eleven percent. More Asian students are enrolling in Algebra II followed by White and Hispanic students. Asian groups also represent the highest percentage of students scoring in the advanced level (Asian – 82%, Chinese – 81%, and Asian Indian – 77%).

Enrollment in the University of California (UC) and California State University (CSU) schools has been growing for the last four years, with an overall increase of eight percent. In 2008, enrollment reached its highest level since the 1996/97 academic year. Two thirds of the enrollment is in the CSU system whereas one third is in the UC system. Enrollment has increased in both university systems since 2003 by over nine percent. Both systems have exhibited a steady increase in growth since the 1996/97 academic year, with the exception of the CSU system experiencing a slight decline in 2002/03 to 2003/04. As a result of recent budget cuts, CSU officials have recently announced that enrollment will have to be slashed by up to 40,000 students in the upcoming school year.[3] Similarly, UC officials indicated that enrollment cuts of up to six percent will be necessary.[4]

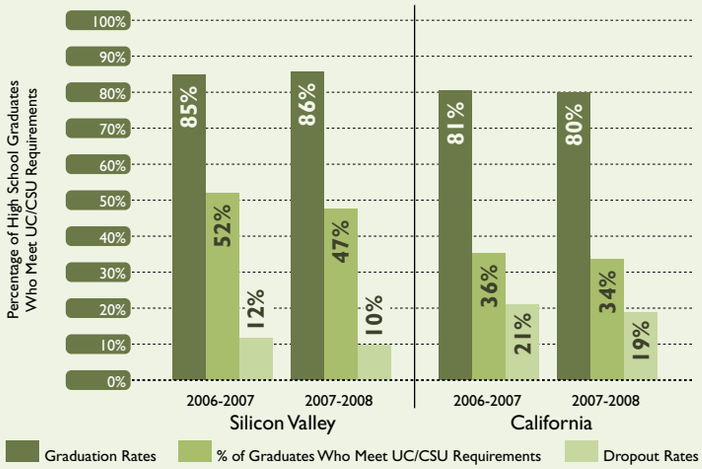
[3] 2009, November 10. California State University officials outline enrollment cuts and preview 2010-2011 budget. Retrieved from http://www.calstate.edu/pa/News/2009/enrollment-budget.shtml

[4] Gordon, L. 2009, January 10. University of California officials urge 6% cut in freshmen for fall. Retrieved from http://articles.latimes.com/2009/jan/10/local/me-ucfreshmen10

High School Graduation

Rate of Graduation and Share of Graduates Who Meet UC/CSU Requirements

Silicon Valley High Schools

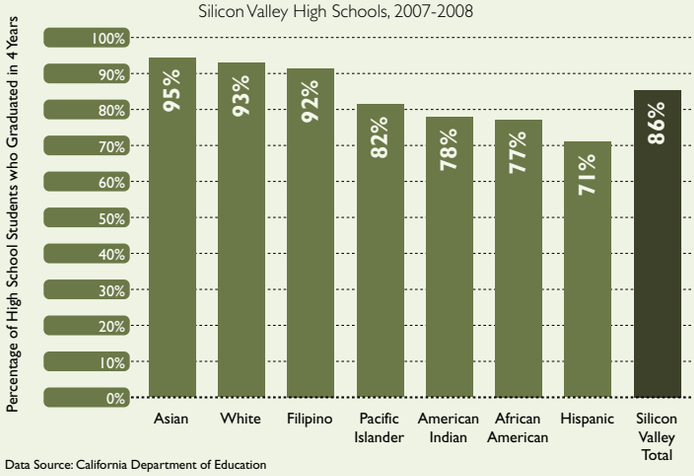


Notes: 2006-07 marks the first year in which the CDE derived graduate and dropout counts based upon student level data
Data Source: California Department of Education
Analysis: Collaborative Economics

High School Graduation Rates

By Ethnicity

Silicon Valley High Schools, 2007-2008

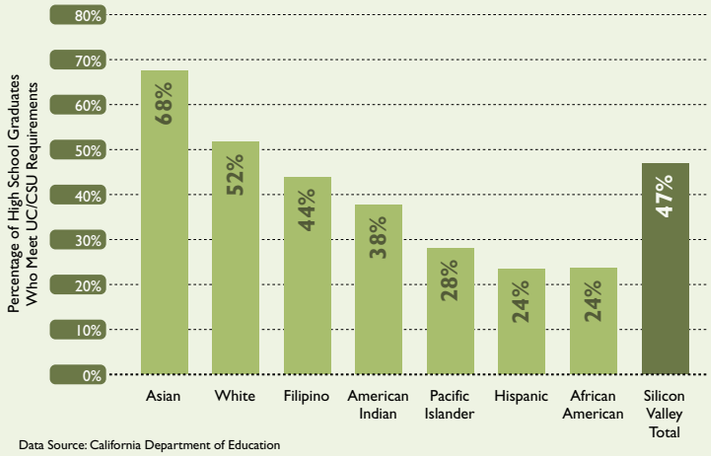


Data Source: California Department of Education
Analysis: Collaborative Economics

Graduates with UC/CSU Required Courses

Percentage of Graduates Who Meet UC/CSU Requirements by Ethnicity

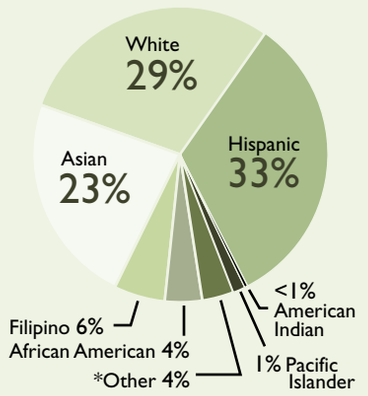
Silicon Valley High Schools, 2007-2008



Data Source: California Department of Education
Analysis: Collaborative Economics

High School Student Population By Ethnicity

Silicon Valley High Schools, 2007-2008

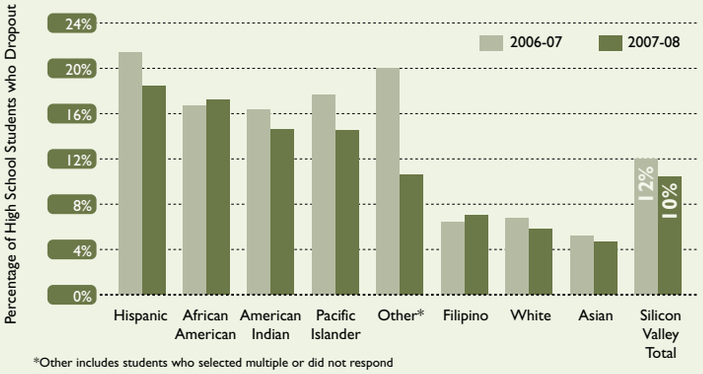


*Other includes students who selected multiple or did not respond
Data Source: California Department of Education
Analysis: Collaborative Economics

High School Dropout Rates

Dropout Rate by Ethnicity

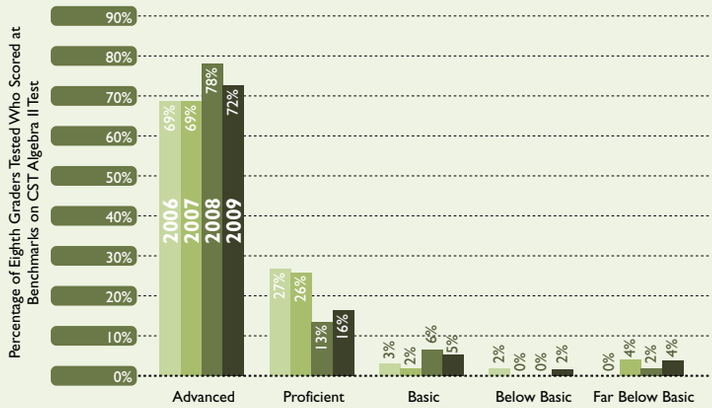
Silicon Valley High Schools, 2006-07 and 2007-08



*Other includes students who selected multiple or did not respond
Data Source: California Department of Education
Analysis: Collaborative Economics

Algebra II Scores

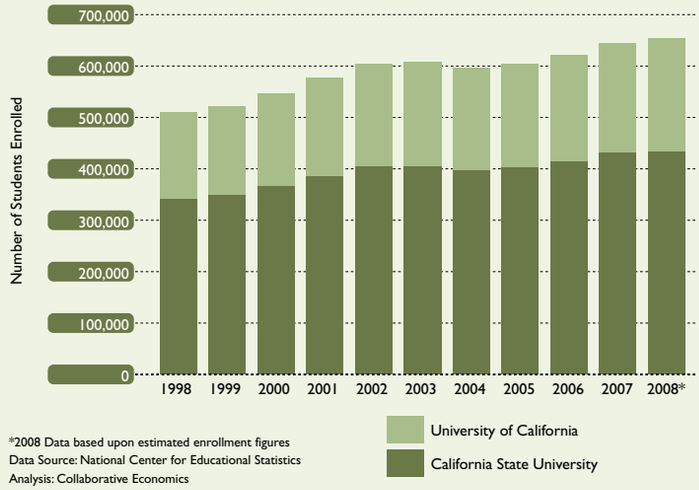
Percentage of Eighth Graders Tested Who Scored at Benchmarks on CST Algebra II Test
Silicon Valley Public Schools



Data Source: California Department of Education
Analysis: Collaborative Economics

Total Enrollment

University of California and California State Universities
1998 to 2008



*2008 Data based upon estimated enrollment figures
Data Source: National Center for Educational Statistics
Analysis: Collaborative Economics

Early Education

SOCIETY

Disparities persist by ethnicity in English language arts proficiency.

Why Is This Important?

When children are subject to positive early childhood – including attendance in high quality preschool programs – experiences that enhance their physical, social, emotional and academic wellbeing and skills, they enter school ready to learn and are more likely to perform better in later school years. Children's school success is in part a function of increasing literacy. Research shows that children who read well in the early grades are far more successful in later years; and those who fall behind often stay behind when it comes to academic achievement.[5] Success and confidence in reading are critical to long-term success in school.

How Are We Doing?

More than any single source, families are seeking care from multiple types of childcare arrangements. Forty percent of the region's children experience multiple sources of care. Other sources of care including non-family members, nursery schools, and state-sponsored programs have increased in share. The percentage of children in the care of a grandparent or other family member has increased almost seven percent (6.5%) since 2001 while the share at childcare centers has dropped nearly three percent (2.5%). Statewide, care by a family member is four percent more prevalent, and in terms of overall trends, family and other types of care have been declining while childcare center-base care has increased moderately.

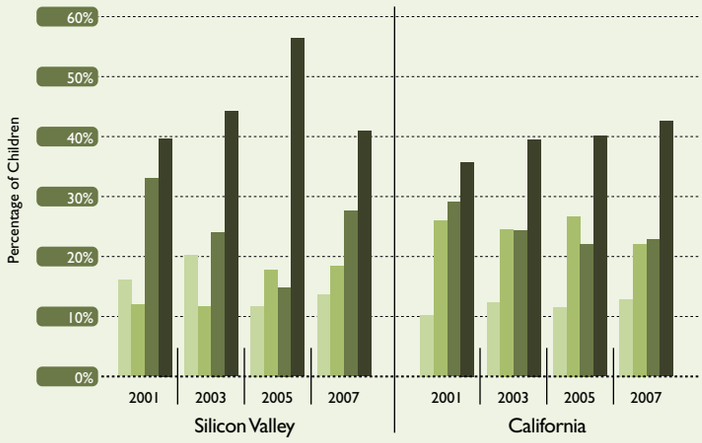
Preschool attendance of entering kindergarteners increased ten percent in Silicon Valley between 2005 and 2008. Incoming kindergarteners in Santa Clara County experienced an 11 percent increase in previous preschool attendance whereas San Mateo County experienced a 13 percent increase from 2005 to 2008.

In terms of kindergarten readiness, the percentage of children significantly below teachers' desired levels of proficiency has continued to improve in Santa Clara County, but has remained relatively unchanged in San Mateo County since 2005. Kindergarten Academics reflects a child's ability to engage with books and recognize letters among other skills. Modest improvement was reported in San Mateo and strong progress in Santa Clara County since 2005. Following up on San Mateo County kindergarten students assessed in 2001, 2002 and 2003, Applied Survey Research recently examined the children's achievement test scores at third, fourth and fifth grades. They found that children's proficiency on Kindergarten Academics was strongly associated with their performance in both English and math at third grade.[6]

Disparities exist in English-Language Arts proficiency by race and ethnicity: 72 percent of Latinos and 70 percent of African American students scored at the basic, below basic or far below benchmark levels. Of all groups, ethnic Chinese children had the largest share (57%) in the advanced level with an additional 27 percent scoring at the Proficient level.

Childcare Arrangements

Type of Care for Children 12 Years Old and Younger

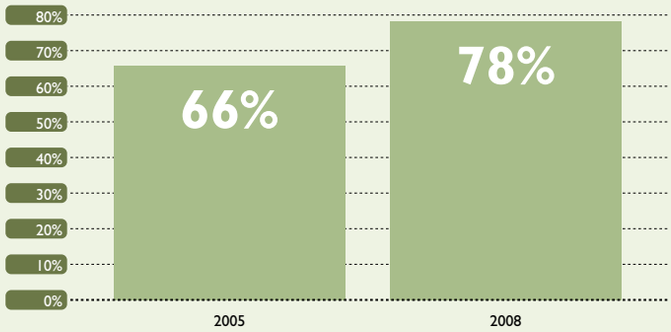


*Other includes Head Start/State Program, Preschool or Nursery School, Non-Family Member, and Other Source
Note: Childcare for children receiving 10 or more hours of childcare a week
Data Source: UCLA California Health Interview Survey
Analysis: Collaborative Economics

Students Entering Kindergarten

Percentage of Entering Kindergarten Students with Preschool Experience

Santa Clara & San Mateo Counties



Data Source: Peninsula Community Foundation, Santa Clara County Partnership for School Readiness, United Way Silicon Valley, Applied Survey Research
Analysis: Collaborative Economics

[5] Snow, C., M.S. Burns & P. Griffin. 1998. *Preventing Reading Difficulties in Young Children.* Washington, D.C.: National Academy Press.

[6] Applied Survey Research. 2008. iDoes Readiness Matter? How Kindergarten Readiness Translates into Academic Success.i (April).

Kindergarten Readiness/Teacher Expectations

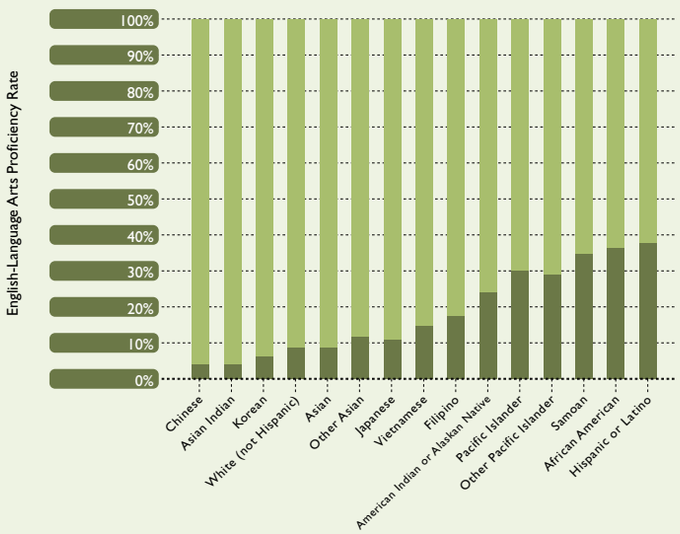
Children Significantly Below Teachers' Desired Levels of Proficiency

Santa Clara & San Mateo Counties

Data Source: Peninsula Community Foundation, Santa Clara County Partnership for School Readiness, United Way Silicon Valley, Applied Survey Research
Analysis: Collaborative Economics

Third Grade English-Language Arts Proficiency by Race/Ethnicity

San Mateo and Santa Clara Counties, 2009



Note: Ethnic groups not included did not have data available
Data Source: California Department of Education
Analysis: Collaborative Economics

Arts and Culture

SOCIETY

Arts organizations are small but vibrant and reflect the region's rich ethnic diversity

Why Is This Important?

Art and culture are integral to Silicon Valley's economic and civic future. Participation in arts and cultural activities spurs creativity and increases exposure to diverse people, ideas and perspectives. Creative expression is essential for an economy based on innovation. How well the region supports its arts and cultural organizations—especially in relation to household income—is an important measure of our overall vitality.

How Are We Doing?

Although the number of new arts and culture organizations slowed in 2008 due to the current recession, Silicon Valley is home to a vibrant arts and culture community. Seventy percent of all Silicon Valley cultural organizations are less than 20 years old. And, reflecting the region's cultural diversity, more than 30 percent of all new organizations are ethnically focused.

Typically, the region's arts and culture organizations are small, and compared to other regions, very few have annual operating budgets over $10 million. Of comparatively sized regions, only Austin has fewer arts and culture groups with budgets over $10 million. At the same time, two thirds (67%) of Silicon Valley arts organizations are very small, volunteer-driven, community groups operating on annual budgets of less than $50,000.

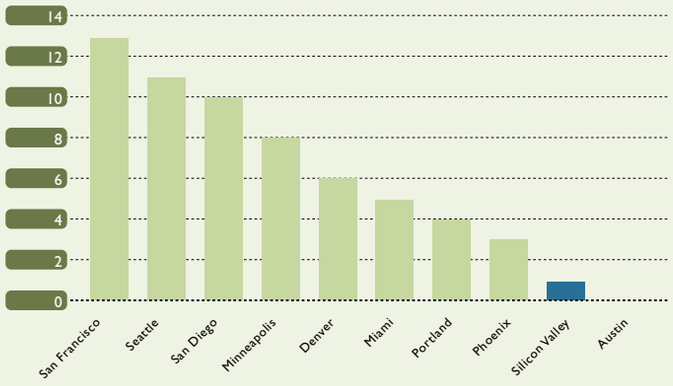
Funding is a challenge. Compared to the national average, Silicon Valley arts and culture groups generate a greater portion of their revenues (10% more) from earned income but receive a significantly lower portion of support from individual contributions (17% less).

Local investment in the area of arts and culture by foundations is currently trailing behind that of other regions. In 2008, only nine percent of the investments made by the top 25 foundations in Silicon Valley supported arts and culture organizations. Despite the accomplishments of these organizations, funding has been low.

Arts & Culture Budgets

Arts & Culture Organizations with Operating Budgets of over $10 Million

2008

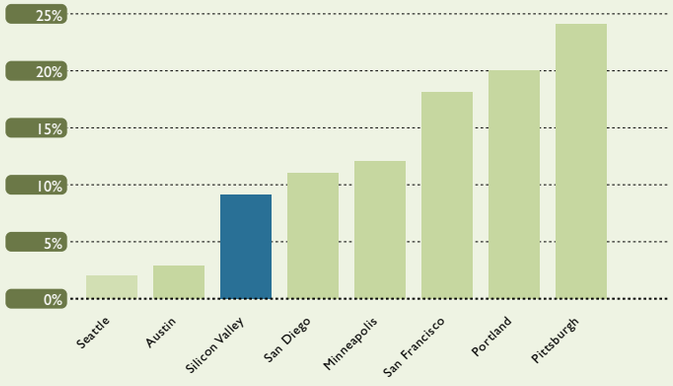


Data Source: National Center for Charitable Statistics
Analysis: 1st Act Silicon Valley

Foundation Support of Arts & Culture Organizations

Percentage of Total Giving by Silicon Valley's 25 Largest Foundations

2008

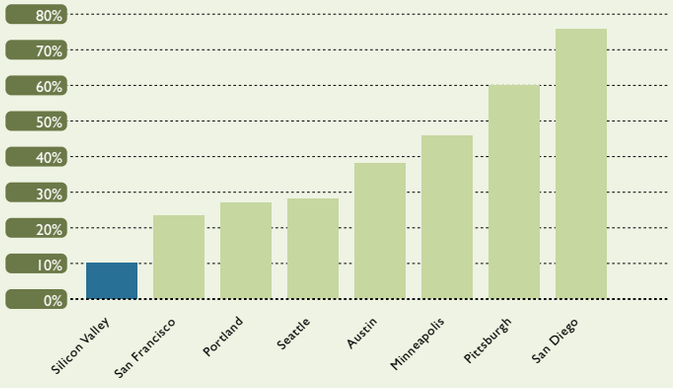


Data Source: Foundation Center Database
Analysis: 1st Act Silicon Valley

Foundation Giving

Percentage of Local Foundation Total Giving Invested in Region

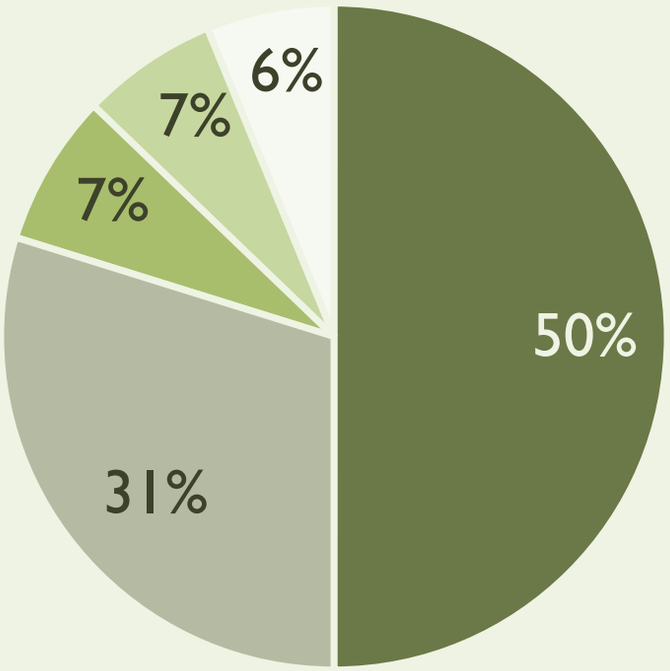
25 Largest Foundations, 2008

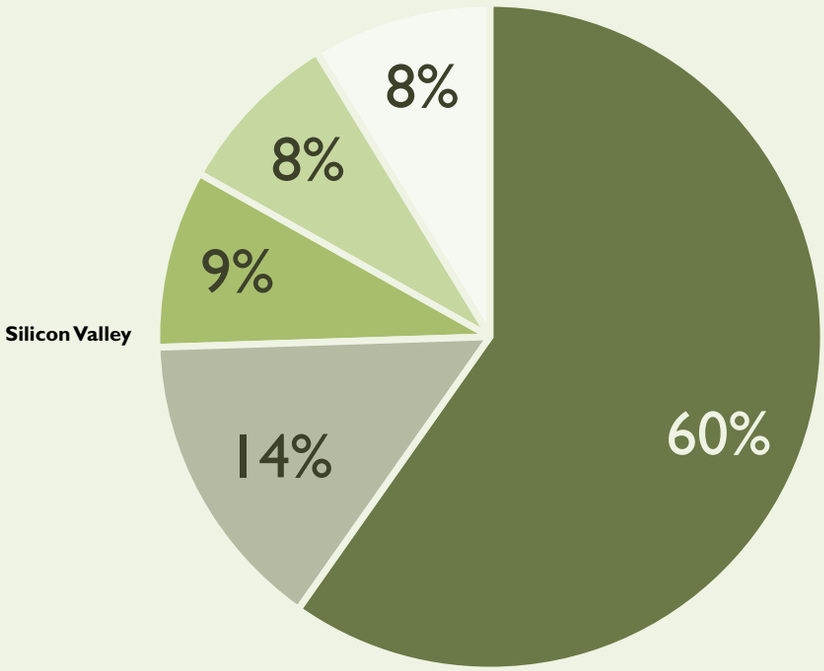


Data Source: Foundation Center Database
Analysis: 1st Act Silicon Valley

Funding Sources for Arts & Cultural Organizations

2008





Data Source: Americans for the Arts
Analysis: 1st ACT Silicon Valley

Quality of Health

SOCIETY

Progress is being made in early child health care in terms of rising immunization rates and dropping mortality rates.

Why Is This Important?

Poor health outcomes generally correlate with poverty, poor access to preventative health care, lifestyle choices, and education. Early and continued access to quality, affordable health care is important to ensure that Silicon Valley's residents are healthy and prosperous. For instance, timely childhood immunizations promote long-term health, save lives, prevent significant disability and reduce medical costs. Health care is expensive, and individuals with health insurance are more likely to seek routine medical care and to take advantage of preventative health-screening services.

Infant mortality, measured as the number of deaths per live births, is one of the fundamental indicators of public health. Population characteristics of a region can be linked to certain health problems. For instance, a large percentage of Silicon Valley's residents were born outside the U.S. Nationally, tuberculosis cases are more common among minority and foreign-born populations; and in 2008, foreign-born residents were 10 times more likely to contract Tuberculosis than U.S.-born residents.[7]

How Are We Doing?

The infant mortality rate in Silicon Valley continued to drop in 2009, with only four in every thousand births ending in death for the child. From the high of 5.5 deaths per thousand in 1997, the rate of child deaths at birth has fallen 1.5 points. California, on the whole, has been experiencing the reverse of Silicon Valley; 2009 saw infant mortality rates rise to seven per thousand births. In 1994 and 1995, California and Silicon Valley were near parity in terms of infant deaths but since then state and local trends have differed greatly.

Silicon Valley showed more progress than California and the United States in 2008 as immunizations of children between 19 and 35 months reached 84 percent – matching the highest percentage on record (in 2004). California and the nation as a whole lagged behind at 80 percent and 78 percent respectively.

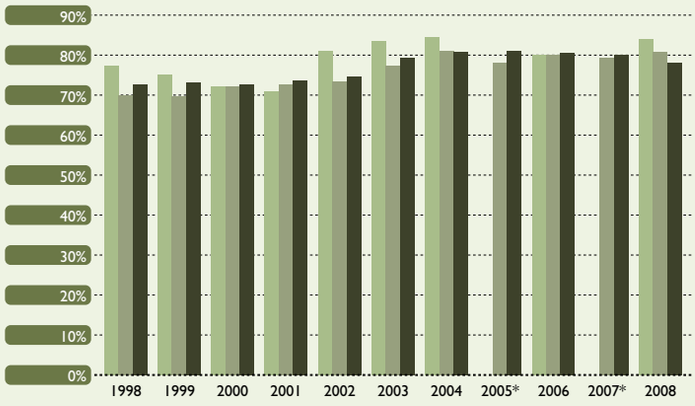
Although access to health insurance has overall remained fairly steady among Silicon Valley residents, the percentage of the population with health insurance varies widely based upon language spoken at home. Since 2001, the percentage of all Silicon Valley residents with health insurance has remained between 90 and 92 percent. In 2007, 96 percent of the population who spoke English at home had health insurance, compared with just 69 percent of Chinese speakers. The percentage of population who spoke Chinese at home showed the largest drop in health insurance coverage, shrinking by 24 percent since 2005. Vietnamese speakers accounted for the largest growth in coverage, increasing 15 percent since 2005. Compared to the state and the nation, a much higher proportion of Silicon Valley's children and adults are covered by health insurance. In Silicon Valley, 95 percent of residents under 18 years of age have health insurance, compared with 89 percent in California and 90 percent nationwide. Roughly 85 percent of the region's 18- to 64-year-old population is insured, compared to 77 percent in California and 80 percent in the United States.

When people do not have regular access to healthcare either through a good insurance policy or some other means, people tend to wait until they find themselves in an urgent situation before they seek attention for an otherwise preventable condition. Ambulatory Care Sensitive Conditions (ACSCs) represent twelve health conditions that are serious enough to result in hospital admissions but could have been prevented if they had been treated earlier in the outpatient or ambulatory care setting. Avoiding or reducing such admissions should result in reduced healthcare costs as well as reduced morbidity and suffering for patients with these diseases.

Over the longer period, between 2003 and 2008, hospitalizations for these preventable conditions have declined in both the Silicon Valley (-11%) and California (-15%). Recently, from 2007 to 2008, there has been a slight increase in the preventable hospitalization rate in both Silicon Valley (1%) and California (0.4%). This increase comes after two consecutive years of declining rates. In 2008, Silicon Valley experienced 330 fewer preventable hospitalizations per 100,000 adults than the state as a whole. The difference between the rates in the Silicon Valley and California has fluctuated over the past six years, but has primarily been on the decline as the rates in both regions have declined, with California's at a slightly faster rate.

Child Immunization Rate

Percentage of Children Ages 19-35 Months
Santa Clara County, California, and United States



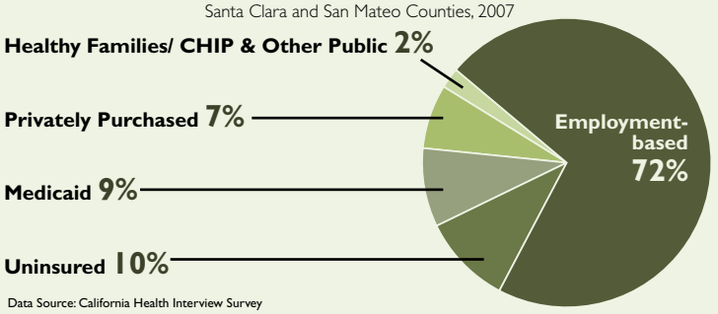
*2005 and 2007 data not available for Santa Clara County
Note: Immunizations based upon rate of children receiving: 4 or more doses of DTaP, 3 or more doses of poliovirus vaccine, 1 or more doses of any MMR, 3 or more doses of Hib, and 3 or more doses of HepB
Data Source: Center for Disease Control, National Center for Health Statistics
Analysis: Collaborative Economics

Healthy People 2010 Objective:

90% of children immunized by 24 months of age

Type of Current Health Coverage Source

For Residents Under 65 Years of Age
Santa Clara and San Mateo Counties, 2007

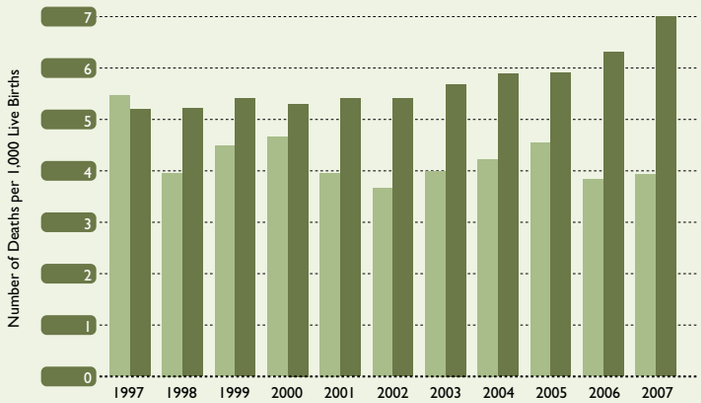


Data Source: California Health Interview Survey
Analysis: Collaborative Economics

[7] Centers for Disease Control and Prevention, Division of Tuberculosis Elimination.

Infant Mortality Rate

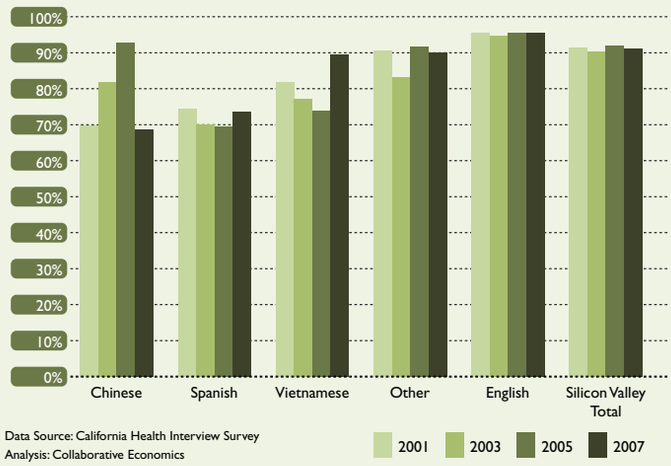
Number of Deaths per 1,000 Live Births
Santa Clara & San Mateo Counties, California



Data Source: California Department of Public Health, Center for Health Statistics
Analysis: Collaborative Economics

Percentage of Population with Health Insurance

By Language Spoken at Home
Santa Clara and San Mateo Counties



Data Source: California Health Interview Survey
Analysis: Collaborative Economics

Health Insurance by Age Group 2008

	SV	CA	US
Under 18 years	95%	89%	90%
18 to 64 years	85%	77%	80%
65 years or over	98%	98%	99%

Note: Data is for civilian noninstitutionalized population
Data Source: U.S. Census Bureau, American Community Survey
Analysis: Collaborative Economics

Preventable Hospitalizations

Across Twelve Targeted Health Conditions Treatable in an Outpatient Setting
Silicon Valley and California

Note: 12 PQIs are grouped together for an overall Preventable Hospitalization indicator. Combining data may result in double counting of persons if they are discharged from the hospital more than once.
Data Source: Office of State Health and Planning Department; U.S. Census Bureau, American Community Survey
Analysis: Collaborative Economics

Safety

Adult and juvenile felony offenses continue to drop, but child welfare services are coming under new pressure.

Why Is This Important?

The level of crime is a significant factor affecting the quality of life in a community. Incidence of crime not only poses an economic burden, but also erodes our sense of community by creating fear, frustration and instability. Occurrence of child abuse/neglect is extremely damaging to the child and increases the likelihood of drug abuse, poor education performance and of criminality later in life. Research has also linked adverse childhood experiences, such as child abuse/neglect, to poor health outcomes including heart disease, depression, and liver and sexually transmitted diseases. Safety for the community starts with safety for children in their homes.

How Are We Doing?

Until 2003, the rate of substantiated child abuse cases in Silicon Valley remained consistently at half the statewide average. Since then, the trend began to rise while California rates fell. The most recent year's data shows a steep decline in Silicon Valley's rate of child abuse, dropping from 7.1 per 1,000 children in 2007 to 4.5 in 2008.

The recent decline in cases from 2007 to 2008 can be explained in part by large funding cuts in social services programs for children. As the State cuts the number of social workers in child welfare programs, fewer reports of child abuse and neglect are investigated and more abused children are left without help.[8] Unfortunately, with more cuts to child protective programs, it is expected that the rate of substantiated child abuse cases will further decline. In the past year, California has directly cut $121 million in child welfare and foster care programs.[9] This combined with indirect cuts is estimated to cost the state 1,318 social workers in the Emergency Response program, resulting in roughly 250,000 reports of child abuse and neglect will not be investigated in the coming year.[10]

Both California and Silicon Valley witnessed a drop in felony offenses by adults; seven percent in California and five percent in Silicon Valley. This trend represents a third and fourth consecutive year of decline for California and Silicon Valley, respectively.

Since 2006, the number of juvenile felony offenses has seen a downward trend in Silicon Valley. In 2008, juvenile felony arrests in Silicon Valley showed a decline of four percent from 2007 levels, the second consecutive year of decline. Overall, from 1996 to 2008, juvenile offenses have fallen by 49 percent. California has charted a steadier downward course over the same 14 year period; starting at a high of 2,011 offenses per 100,000 in 1996 which leveled off in 2003.

For the third consecutive year adult drug offenses dropped, reaching an all-time low of 327 per 100,000 adults_a decrease of 10 percent from 2007-2008. The last five years have seen only minor changes in the number of patients checked into a drug and alcohol rehabilitation center.

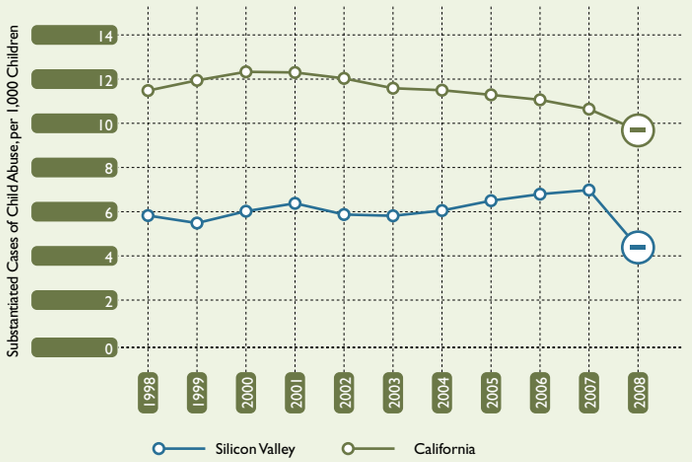
The past five years have seen an average of 6.7 percent increase per year in the number of juvenile felony offenses. At the same time, juvenile patients in rehabilitation clinics had been on the rise from 2005 to 2007 but saw a drop of 19 percent in 2008.

Over the last two school years, expulsions due to violence or drugs have decreased moderately by 0.2 per 1,000 enrolled students in Silicon Valley and by 0.4 statewide. Silicon Valley has traditionally trended 0.8 points lower than the state. Silicon Valley has averaged two expulsions per 1,000 students while California has averaged 2.8 expulsions per 1,000 over the last five years.

[8] Mecca, FJ. (2008, January 25). Child welfare services funding cut. Retrieved from http://www.cwda.org/downloads/priorities/budget2008/BudgetMemo9.pdf
[9] Mecca, FJ. (2009, October 13). Cuts in California how billions in budget cuts will affect the Golden State. Retrieved from http://projects.nytimes.com/california-budget/Social%20Services
[10] Mecca, FJ. (2009, May 22). Child welfare services and foster care program cuts for abused and neglected children. Retrieved from http://www.cwda.org/downloads/priorities/budget2009/BudgetMemo_07.pdf

Child Abuse

Substantiated Cases of Child Abuse per 1,000 Children
Silicon Valley and California



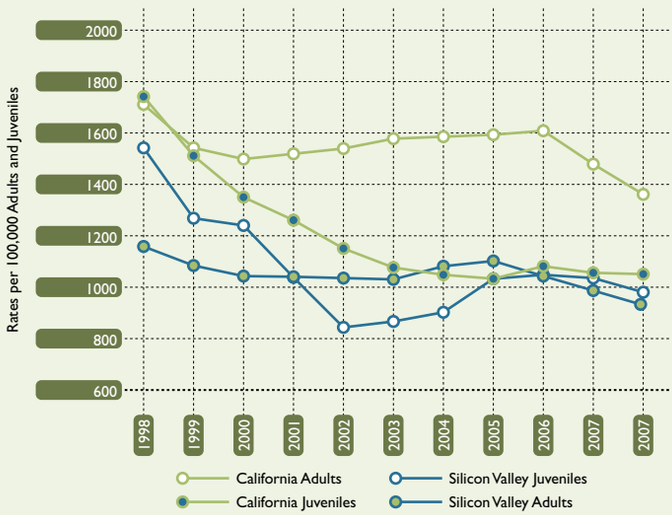
Data Source: California Department of Social Services, UC Berkeley Center for Social Services Research
Analysis: Collaborative Economics

Substantiated Cases

	2007	2008	% Change
Silicon Valley	4,172	2745	**-34%**
California	107,372	96,575	**-10%**

Felony Offenses

Felony Offenses per 100,000 Adults and Juveniles
Santa Clara & San Mateo Counties and California



Note: Felony offenses include violent, property, and drug offenses
Data Source: California Department of Justice
Analysis: Collaborative Economics

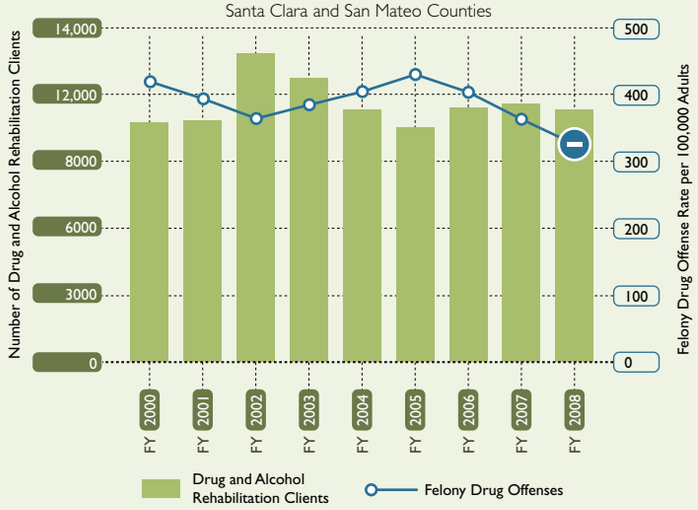
Percent Change in Felony Offenses per 100,000 Adults or Juveniles in the Region **2006-2008**

Adults	-11%
Juveniles	-5%

Drug Offenses & Services – Adult

Adult Drug & Alcohol Rehabilitation Clients & Felony Drug Offenses

Santa Clara and San Mateo Counties

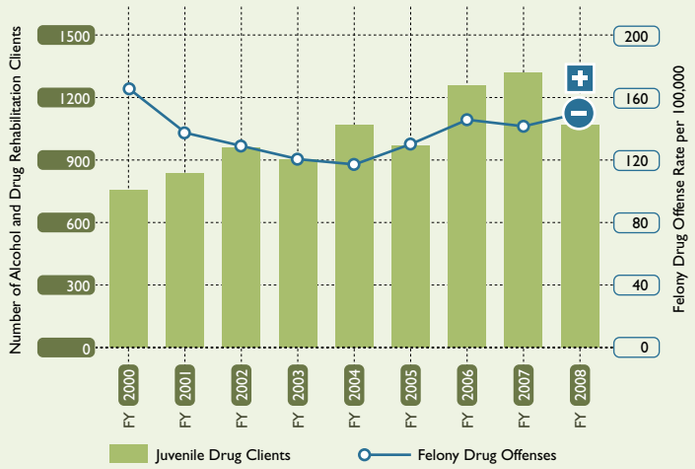


Note: Data is in fiscal years
Data Source: California Department of Justice; Santa Clara County Department of Alcohol & Drug Services; Alcohol & Drug Services Research Institute; San Mateo County Human Services Agency, Planning & Evaluation
Analysis: Collaborative Economics

Drug Offenses & Services – Juvenile

Juvenile Drug & Alcohol Rehabilitation Clients & Felony Drug Offenses

Santa Clara & San Mateo Counties

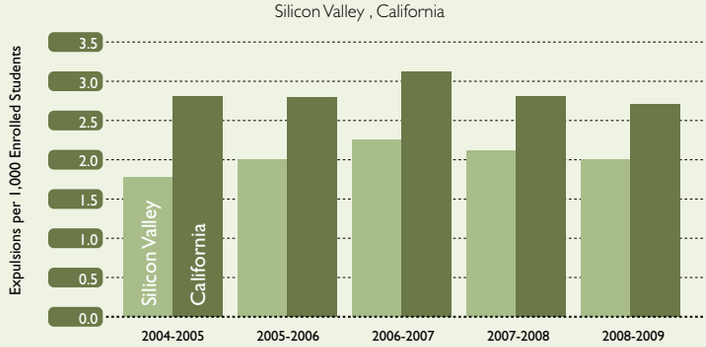


Note: Data is in fiscal years
Data Source: California Department of Justice; Santa Clara County Department of Alcohol & Drug Services; Alcohol & Drug Services Research Institute; San Mateo County Human Services Agency, Planning & Evaluation
Analysis: Collaborative Economics

Public School Expulsions Due to Violence/Drugs

Expulsions Per 1,000 Enrolled K-12 Students

Silicon Valley , California



Data Source: California Department of Education
Analysis: Collaborative Economics

Environment

PLACE

The region is making progress in environmental improvements; however, more progress must be made toward achieving greater regional sustainability.

Why Is This Important?

Water is one of the region's most precious resources, serving a multitude of needs, including drinking, recreation, supporting aquatic life and habitat, and agricultural and industrial uses. Water is also a limited resource because water supply is subject to changes in climate and state and federal regulations. Sustainability in the long-run requires that households, workplaces and agricultural operations efficiently use and reuse water.

Energy consumption impacts the environment with the emissions of greenhouse gases and atmospheric pollutants through the combustion of fossil fuels. Sustainable energy policies include increasing energy efficiency and the use of clean renewable energy sources. Electricity productivity illustrates the degree to which the region's production of economic value is linked with its electricity consumption.

Environmental quality directly affects the health of all residents and the ecosystem in the Silicon Valley region, which is in turn affected by the choices that residents make about how to live—how we chose to access work, other people, goods and services; where we build our homes; how we use our natural resources; and how we enforce environmental guidelines.

Preserving open space protects natural habitats, provides recreational opportunities, focuses development, and maintains the visual appeal of our region. Further, climate change threatens to displace wildlife populations from their current habitats, and this increases the importance of maintaining open space corridors that may permit migration to new habitats. Protected lands include habitat and wildlife preserves, waterways, agricultural lands, flood control properties, and parks.

How Are We Doing?

Residents of Silicon Valley are reducing their water consumption. From 2000 to 2008, gross per capita consumption fell by four percent and since 2007, gross per capita consumption fell by roughly one percent. The percentage of total water used that is recycled grew by roughly two percent from 2000 to 2008.

Electricity consumption per capita is a measure of efficiency, and consumption per capita in Silicon Valley is higher than the rest of the state. Over the long-term, consumption per capita has increased at a faster rate statewide than in Silicon Valley. Between 1998 and 2008, electricity consumption per capita increased by four percent in the Valley and 17 percent in the rest of California. While electricity consumption per capita in California has grown by 0.1 percent since 2007, consumption levels in Silicon Valley have declined by less than one percent.

The economic value produced per megawatt hour consumed is a measure of the region's electricity productivity. In 2008, Silicon Valley's electricity productivity was 14 percent higher than that of California. Electricity productivity in Silicon Valley has increased four percent since 2003, while California increased by three percent. Silicon Valley has seen an increase in electricity productivity of one percent since 1998, while California has had an increase of 10 percent.

The new capacity of solar power installed in the region fell back 24 percent in 2009 from the prior year and increased by 22 percent in the rest of the state. Silicon Valley's share of the state's solar capacity added to the grid through the California Solar Initiative decreased slightly to 11 percent in 2009. Residential and Commercial sectors accounted for 89 percent and seven percent, respectively, of the solar capacity added in the Silicon Valley.

In 2009, protected open space made up 31 percent of Silicon Valley's total acreage. Since 2008, the amount of protected open space increased 2.1 percent. The total protected lands acreage in the region grew 44 percent and the amount of protected land accessible to the public increased by 43 percent from 2002 to 2009.

Water Resources

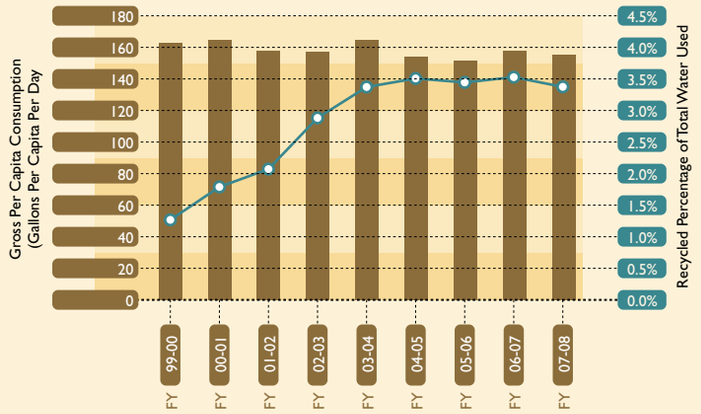
Per Capita Water Consumption

2007–2008

-1.3%

Gross Per Capita Consumption & Share of Consumption from Recycled Water

Silicon Valley BAWSCA Members

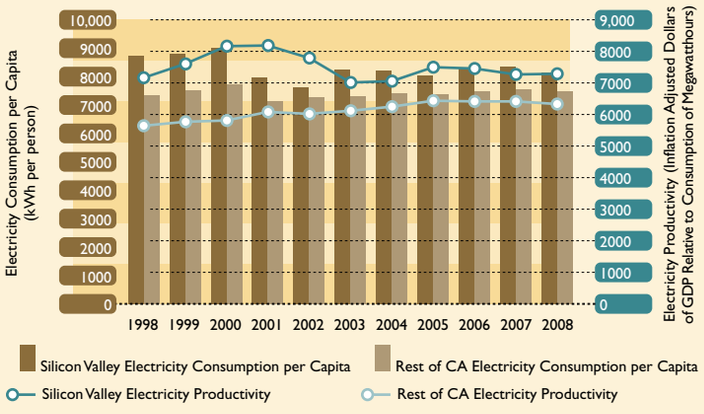


Data Source: Bay Area Water Supply & Conservation Agency Annual Survey
Analysis: Collaborative Economics

Electricity

Electricity Productivity and Electricity Consumption per Capita

Santa Clara & San Mateo Counties, Rest of California



Data Source: Moody's Economy.com; California Energy Commission; State of California, Department of Finance
Analysis: Collaborative Economics

Percent Change of Electricity Productivity

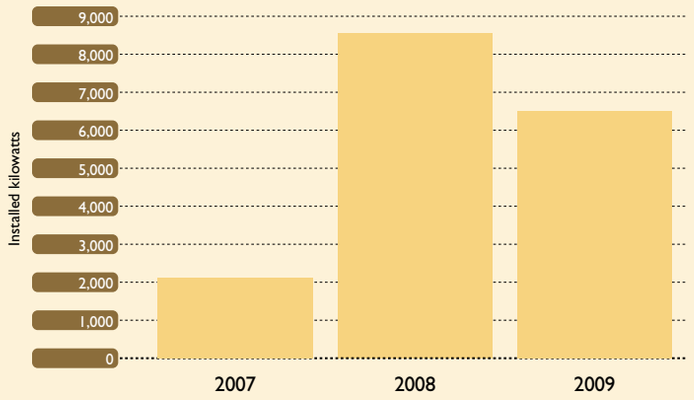
	2003–2008	2007–2008
SV	+3.9%	+0.1%
CA	+3.2%	-1.4%

11% of California's solar capacity added in 2009 **was in Silicon Valley**

Solar Installations

Capacity (kW) Installed Through the California Solar Initiative

Silicon Valley



Data Source: California Public Utilities Commission, California Solar Initiative
Analysis: Collaborative Economics

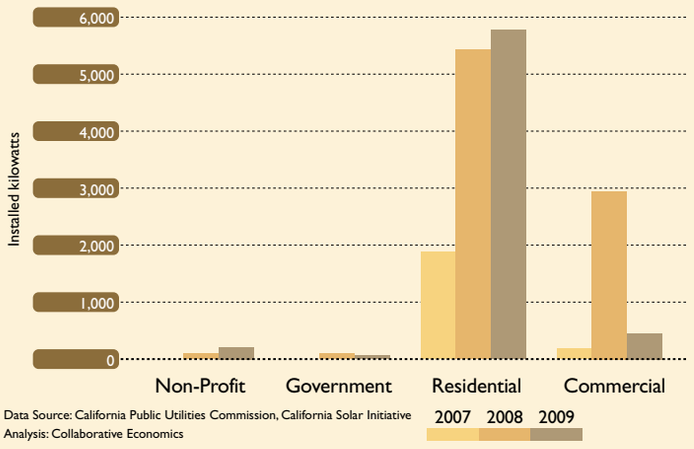
Growth in Solar Capacity (kW) installed through the California Solar Initiative
2008–2009

Silicon Valley	**-24%**
Rest of California	**22%**

Solar Installations by Sector

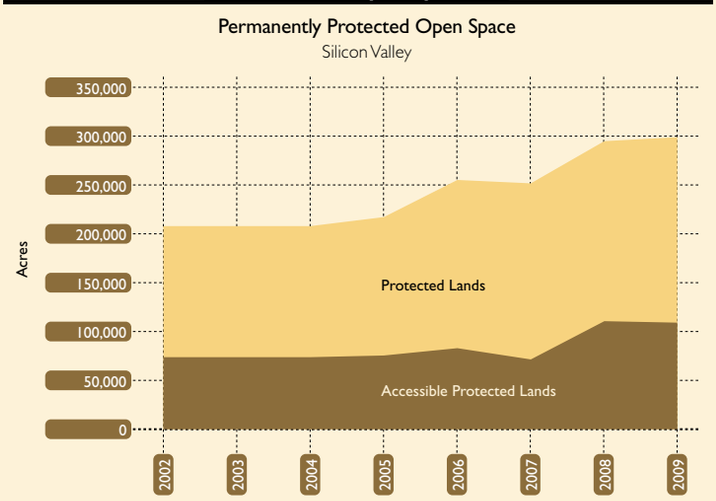
Capacity (kW) Installed Through the California Solar Initiative

Silicon Valley



Data Source: California Public Utilities Commission, California Solar Initiative
Analysis: Collaborative Economics

Protected Open Space



Includes data for the cities of Atherton, Belmont, East Palo Alto, Foster City, Menlo Park, Portola Valley, Redwood City, San Carlos, San Mateo, Woodside, Campbell, Cupertino, Gilroy, Los Altos, Los Altos Hills, Los Gatos, Milpitas, Monte Sereno, Morgan Hill, Mountain View, Palo Alto, San Jose, Santa Clara, Saratoga, Sunnyvale, Scotts Valley, Union City, Newark, Fremont
Data Source: GreenInfo Network
Analysis: Collaborative Economics

Transportation

PLACE

Silicon Valley drivers are driving less and shifting to cleaner vehicles.

Why Is This Important?

The modes of transportation we use to access work, other people, goods, and services, including the type of cars we drive, impacts the quality of our air and the region's transportation infrastructure. Motor vehicles are the major source of air pollution for the Bay Area. By utilizing alternative modes of transportation, such as public transit and walking, as well as choosing vehicles that are more fuel efficient or use alternative sources of fuel, residents can reduce their ecological footprint.

Shifting from carbon-based fuels to renewable energy sources and reducing consumption together have the potential for wide-reaching impact on our environmental quality in terms of local air quality and global climate change.

How Are We Doing?

Vehicle miles of travel (VMT) have been declining as gas prices have risen. From 2007 to 2008, gas prices in California grew by ten percent while VMT in Silicon Valley decreased by four percent. This trend began in 2002: since then gas prices have increased 91 percent and while VMT has decreased 14 percent.

Silicon Valley residents have been consuming less fuel on a per capita basis since 2000. Between 2000 and 2008, fuel consumption per capita dropped by 13 percent in the region, compared with a two percent decline in the rest of the state. Although fuel consumption per capita was higher in Silicon Valley in 2000 than in the rest of California, this trend has reversed. In 2008, Silicon Valley residents consumed roughly 50 gallons of fuel less per person than the rest of Californians.

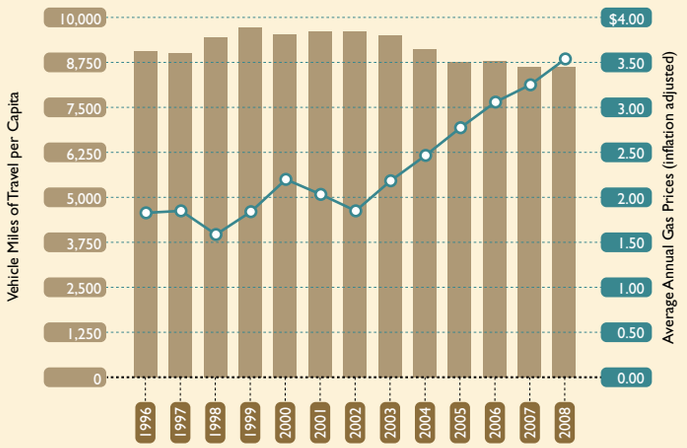
Silicon Valley commuters are using more alternatives to driving alone. In 2008, 75 percent of commuters drove alone, down from 78 percent from five years before.

In 2009, transit ridership in Silicon Valley decreased slightly (1%), but has remained at roughly 28 rides per capita since 2008.

In 2008, Silicon Valley accounted for eight percent of newly registered gasoline vehicles in California and 13 percent of newly registered alternative fuel vehicles. Alternative fuel vehicles comprise a growing percentage of newly registered vehicles. In 2008, alternative fuel vehicles accounted for 3.1% of newly registered vehicles in the region, compared with 0.1% in 2000.

Vehicle Miles of Travel per Capita and Gas Prices

Santa Clara and San Mateo Counties



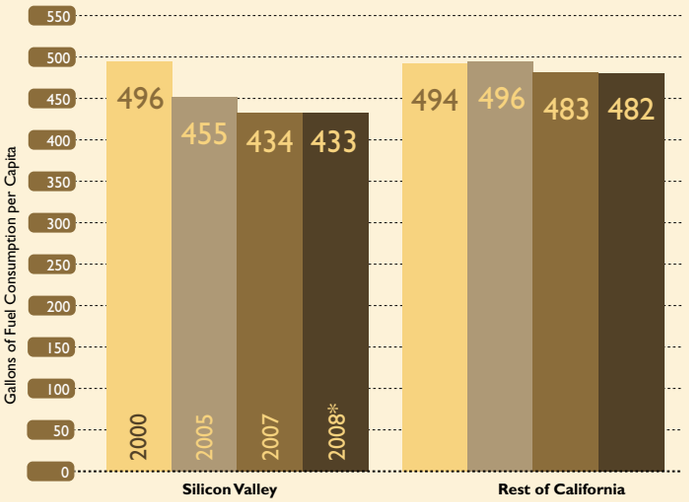
Note: Gas prices are average annual retail gas prices for California
Data Source: California Department of Transportation; Energy Information Administration, U.S. Department of Energy; California Department of Finance
Analysis: Collaborative Economics

Percent Change
2007–2008

VMT per Capita	**–4%**
Gas Prices	**+10%**

Fuel Consumption

Per Capita Fuel Consumption
San Mateo & Santa Clara Counties and the Rest of California



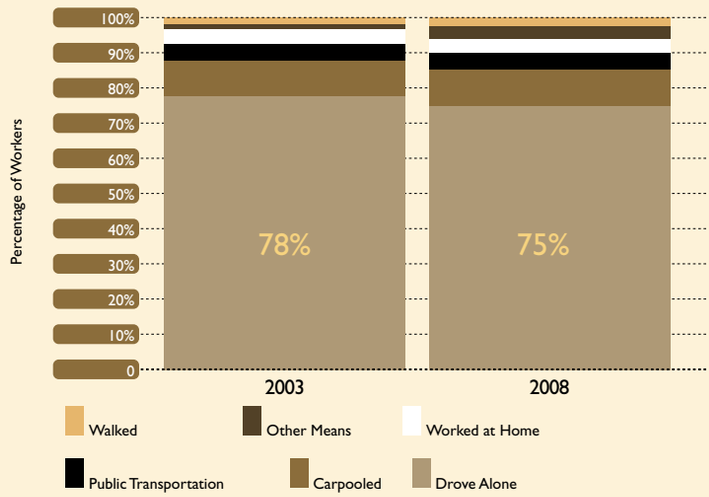
*2008 figures are projections
Note: Fuel Consumption consists of gasoline and diesel fuel usage on all public roads
Data Source: California Department of Transportation, California Department of Finance
Analysis: Collaborative Economics

Per Capita Fuel Consumption
2000–2008

Silicon Valley	**–13%**
Rest of California	**-2%**

Means of Commute

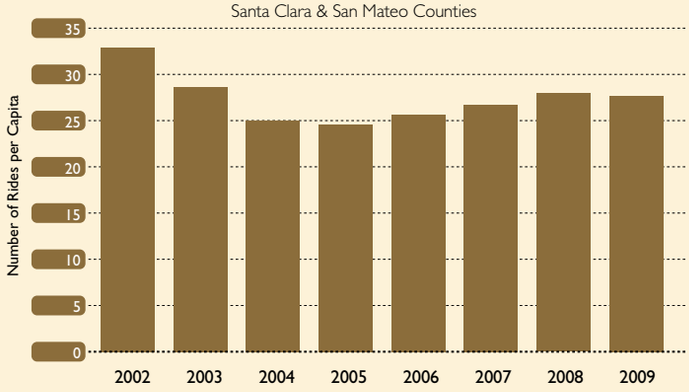
Percentage of Workers
Santa Clara and San Mateo Counties



Note: Other means includes taxicab, motorcycle, bicycle and other means not identified separately within the data distribution. Taxicabs are included in 2002 (2003?) Public Transportation data and 2008 Other Means data.
Data Source: U.S. Census Bureau, American Community Survey
Analysis: Collaborative Economics

Transit Use

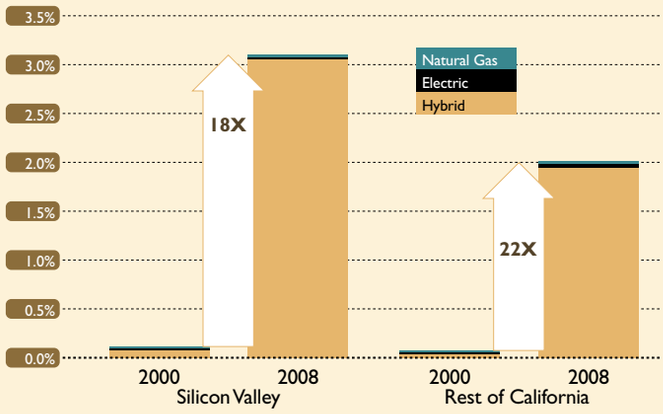
Number of Rides per Capita on Regional Transportation Systems
Santa Clara & San Mateo Counties



Note: Date is in fiscal years
Data Source: Altamont Commuter Express, Caltrain, Sam Trans, Valley Transportation Authority, California Department of Finance
Analysis: Collaborative Economics

Alternative Fuel Vehicles

Alternative Fuel Vehicles as a
Percentage of Newly Registered Vehicles by Fuel Type
Silicon Valley and the Rest of California



Data Source: R.L. Polk & Co.
Analysis: Collaborative Economics

Land Use

PLACE

Transit-oriented development continues to expand, and to varying levels of success, cities are developing permitting to reflect growing demand for installation of renewable energy systems.

Why Is This Important?

By directing growth to already developed areas, local jurisdictions can reinvest in existing neighborhoods, use transportation systems more efficiently, and preserve the character of adjacent rural communities. Focusing new commercial and residential developments near rail stations and major bus corridors reinforces the creation of compact, walkable, mixed-use communities linked by transit. This helps to reduce traffic congestion on freeways, preserve open space near urbanized areas, and improve energy efficiency. By creating mixed use communities, Silicon Valley gives workers alternatives to driving alone and increases access to jobs. The adoption of green building policies fosters energy efficiency; however, the length of a municipality's required permitting process can pose significant barriers especially to the widespread adoption of renewable energy installations.

In recent years, residents and businesses have become increasingly interested in investing in renewable energy installations. For the first time this year, we examine our region's growing clean energy generation capacity and the related permitting requirements, as well as the expansion of electric vehicle charging stations in the region.

How Are We Doing?

Silicon Valley is continuing its progress in increasing the density levels for new residential construction, and 2009 marks the fifth year in which newly-approved housing has averaged more than 20 units per acre. This streak comes after five years (2000-2004) of new residential construction averaging a density almost half the current trend. Since 1998, the unit per acre density of new housing has increased from 6.6 to a high of 22.75 in 2006.

Another trend, that is becoming the norm rather than the exception, is new housing being located in close proximity to mass transit. More than 60 percent of new residential construction is being sited within walking distance of Silicon Valley's transit infrastructure; 2009 represents the second year in a row that this holds true. This new trend follows a pattern of steady increases, starting in 2004.

In a reversal from 2008, 2009 marks the second largest increase in new, non-residential construction near transit, adding more than four million square feet of buildings.

Since 2008, Silicon Valley cities have implemented new green building codes. Up from 19 cities in 2008, 2009 now boasts 21 cities with green building codes. Of those 19, thirteen have mandatory building codes for residential or commercial, new construction and retrofits. Even beyond that, nine of the cities have enacted incentives and sanctions to enforce their policies.

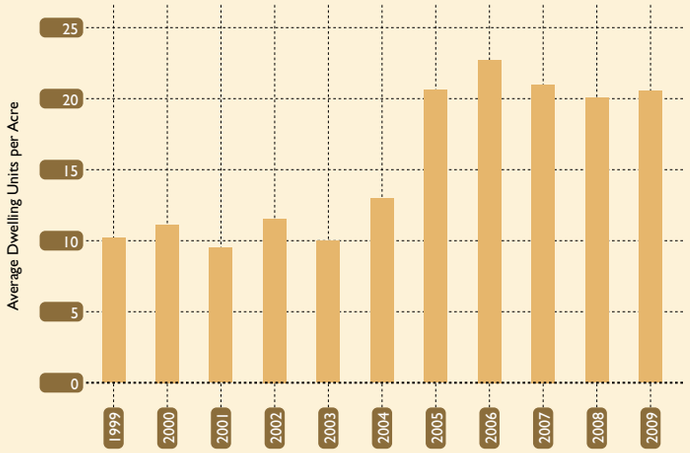
Historically, California has been looked to as the model for environmental progress; the renewable energy movement in Silicon Valley is quickly living up to this reputation. In Silicon Valley, solar energy is taking the lead with 4,762 installations producing 216 megawatts of electricity (962 permits have been issued this year alone). An average permitting period of seven days and fees as low as $35 have helped keep the barrier to entry low for those with solar aspirations.

Permit times for wind, geothermal and electric vehicle charging stations tend to take longer on average than solar. Required permit times average 12.6 days for wind installations, nine days for geothermal average and 12.2 days for electric vehicle charging stations. The longest permit times were experienced by geothermal and electric vehicle charging stations for which some cities require six to eight weeks to issue a permit. The shortest permitting times required by a city consisted of waits measured in hours and were equally as efficient across each renewable energy category.

Residential Density

Average Units Per Acre of Newly Approved Residential Development

Silicon Valley



Note: Beginning in 2008, the Land Use Survey expanded its geographic definition of Silicon Valley to include cities northward along the U.S. 101 corridor (Brisbane, Burlingame, Millbrae, San Bruno and South San Francisco)

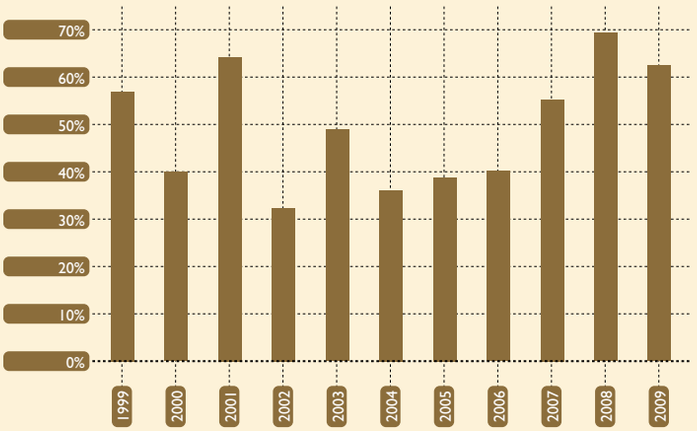
Data Source: City Planning and Housing Departments of Silicon Valley

Analysis: Collaborative Economics

Housing Near Transit

Share of New Housing Units Approved That Will Be Within 1/4 Mile of Rail Stations or Major Bus Corridors

Silicon Valley

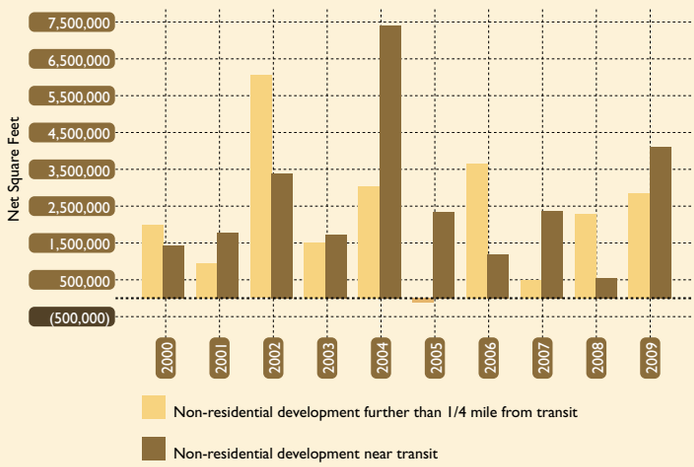


Note: Beginning in 2008, the Land Use Survey expanded its geographic definition of Silicon Valley to include cities northward along the U.S. 101 corridor (Brisbane, Burlingame, Millbrae, San Bruno and South San Francisco)
Data Source: City Planning and Housing Departments of Silicon Valley
Analysis: Collaborative Economics

Development Near Transit

Change in Non-Residential Development Near Transit

Silicon Valley



Note: Beginning in 2008, the Land Use Survey expanded its geographic definition of Silicon Valley to include cities northward along the U.S. 101 corridor (Brisbane, Burlingame, Millbrae, San Bruno and South San Francisco)
Data Source: City Planning and Housing Departments of Silicon Valley
Analysis: Collaborative Economics

Time Required for Permitting Process for Renewable Energy Installations

Installation Type	Average Permitting Length (Days)	Shortest Permitting Length (Days)	Longest Permitting Length (Weeks)	Number of Cities Above Average	Number of Cities Below Average
Solar Systems	8	1	3-4	7	16
Wind Turbines	13	0	3-4	6	3
Geothermal Systems	9	0	6-8	7	4
Electric Vehicle Charging Stations	12	0	6-8	5	5

Housing

PLACE

As a result of the financial crisis, housing costs are falling.

Why Is This Important?

The affordability of housing affects a region's ability to maintain a viable economy and high quality of life. Lack of affordable housing in a region encourages longer commutes, which diminish productivity, curtail family time and increase traffic congestion. Lack of affordable housing also restricts the ability of crucial service providers—such as teachers, registered nurses and police officers—to live in the communities in which they work. The current financial crisis is greatly adding to housing pressures in the region.

How Are We Doing?

Affordable housing units accounted for eleven percent of new housing units in the region in 2009. This share has doubled since 2008, showing an increased emphasis on providing affordable new housing in Silicon Valley. At the same time, the push for affordable housing is tempered by the fact that the eleven percent amounts to 1,273 units-- 131 fewer units than in 2008. This can be put into perspective when taking into account the explosive growth in housing that 2008 witnessed; in total 25,765 new housing units were approved. In response to the economic downturn, in 2009, 47 percent fewer new housing units were approved for development.

In the past year, average rents declined six percent from 2008, the first drop in rents since 2005. Rental rates have been growing over the longer-term, increasing ten percent since 2005.

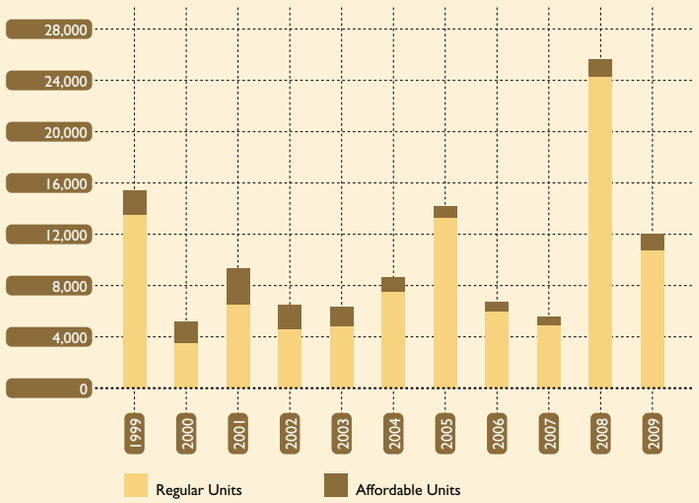
The financial crisis and high foreclosure rates have been significant factors in the rising home affordability index. Since 2007, the home affordability index has been on the rise in the Silicon Valley having hit its six-year low in 2007 at 22 percent. In 2009, 54 percent of first-time home buyers in Silicon Valley could afford to buy a median priced single family home. This same trend can be seen in other parts of California, with Sacramento consistently reporting the highest affordability index of the five communities included in this analysis. Since 2003, 2009 marks the highest affordability index for all five California communities and the State as a whole.

With roughly 5,400 home foreclosures in Silicon Valley in 2009, residential foreclosure activity dropped by 39 percent since its peak in 2008. Similarly, foreclosure activity in California has also been ebbing. In 2009, there were 139,115 foreclosure sales across the state, down by 42 percent compared with 2008. In the first three quarters of 2009, residential foreclosure sales accounted for nearly one quarter of home sales in the region. The cities with the lowest levels of foreclosure activity include Atherton, Palo Alto, Los Altos, Portola Valley, with foreclosures accounting for two percent of home sales. Silicon Valley cities where foreclosure activity is higher than the regional average, and foreclosures contribute more than one third of home sales include Brisbane (43%), San Martin (42%), Gilroy (40%), Newark (39%), Union City (38%), Montara (38%), Daly City (38%), South San Francisco (35%).

Building Affordable Housing

Total New Housing Units Approved, Including New Affordable Housing Units

Silicon Valley



Note: Beginning in 2008, the Land Use Survey expanded its geographic definition of Silicon Valley to include cities northward along the U.S. 101 corridor (Brisbane, Burlingame, Millbrae, San Bruno and South San Francisco)

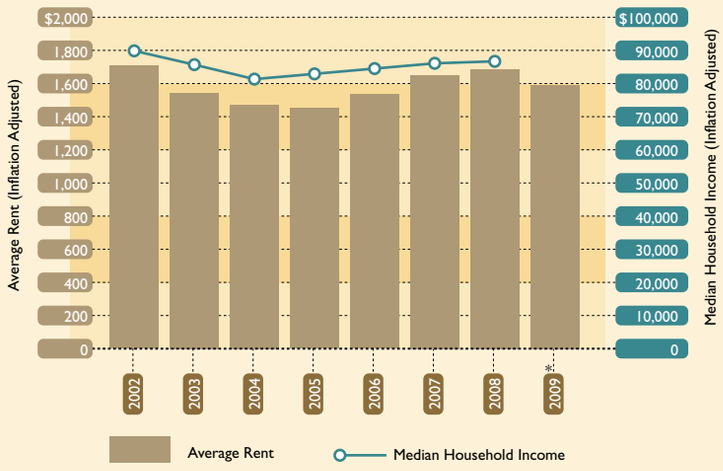
Data Source: City Planning and Housing Departments of Silicon Valley

Analysis: Collaborative Economics

Rental Affordability

Apartment Rental Rates at Turnover Compared to Median Household Income

Santa Clara and San Mateo Counties



* Estimate based on Quarters 1-3, 2009
Data Source: Real Facts; United States Census Bureau, American Community Survey
Analysis: Collaborative Economics

2008–2009

Average Rent **-6%**

Home Affordability

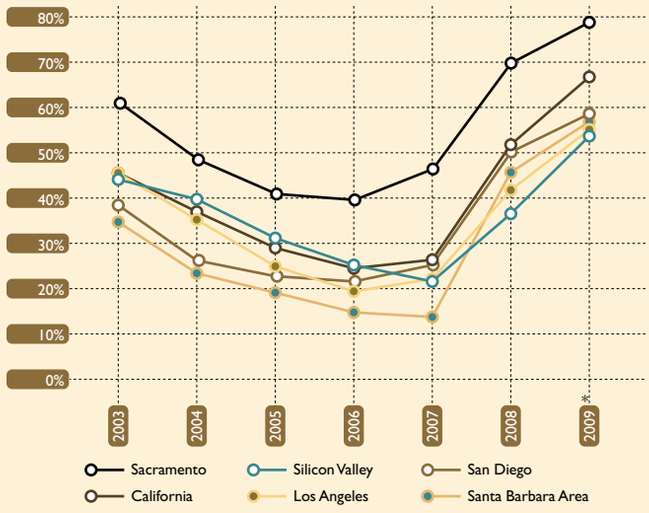
Percentage of Potential First-Time Homebuyers That Can Afford to Purchase a Median-Priced Home

Silicon Valley & Other California Regions

Percentage of first-time homebuyers that can afford to purchase a median priced home in 2009

54% Silicon Valley

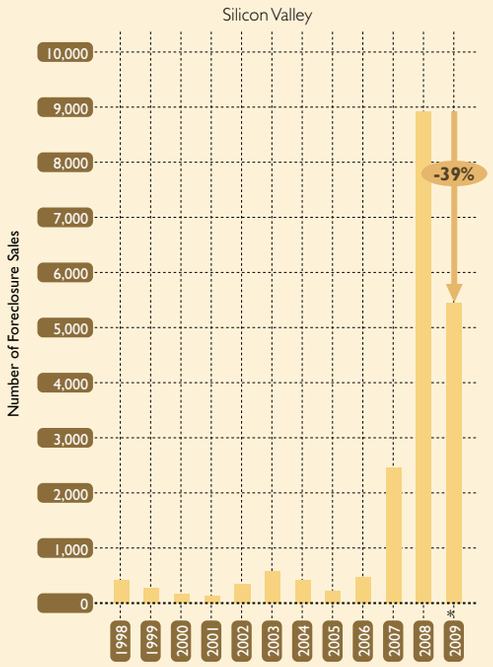
67% California

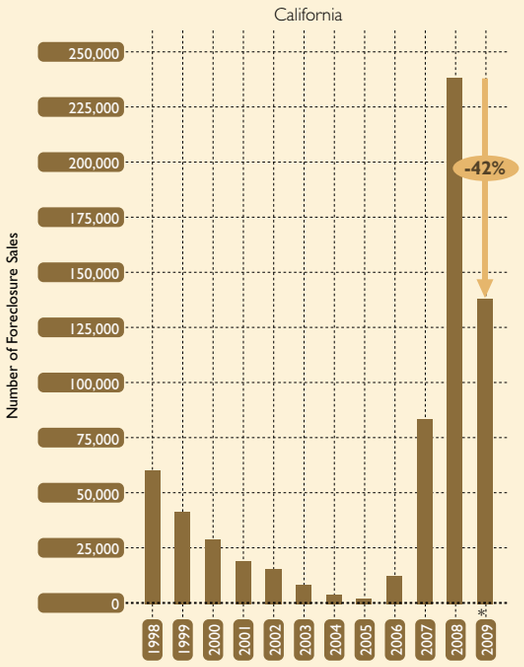


* Estimate based on Quarters 1-3, 2009
Data Source: California Association of Realtors, Home Affordability Index; DataQuick Information Systems
Analysis: Collaborative Economics

Residential Foreclosure Activity

Annual Number of Foreclosure Sales





* Estimate based on Quarters 1-3, 2009
Data Source: RAND California; DataQuick Information Systems
Analysis: Collaborative Economics

Residential Foreclosure Activity by Silicon Valley City

2009 (Q1 - Q3)

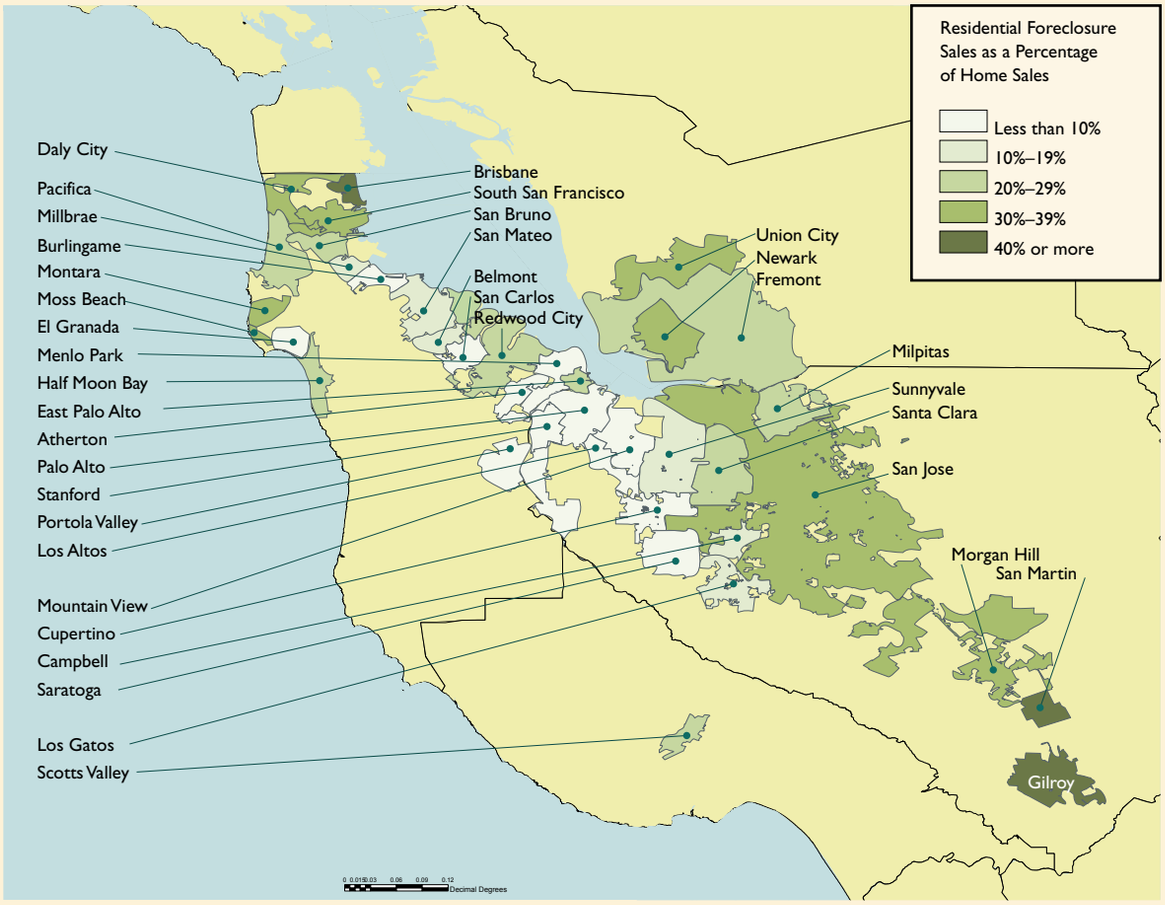
	Number of Home Sales	Number of Foreclosure Sales	Foreclosures as a % of Home Sales
Stanford	2	-	**0%**
Atherton	60	1	**2%**
Palo Alto	295	5	**2%**
Los Altos	348	7	**2%**
Portola Valley	47	1	**2%**
Cupertino	366	12	**3%**
Mountain View	501	21	**4%**
Burlingame	255	11	**4%**
San Carlos	242	13	**5%**
El Granada	15	1	**7%**
Saratoga	225	16	**7%**
Menlo Park	351	25	**7%**
Millbrae	139	14	**10%**
Belmont	174	19	**11%**
Sunnyvale	792	89	**11%**
Los Gatos	366	47	**13%**
Campbell	279	36	**13%**
San Mateo	838	131	**16%**
Santa Clara	738	152	**21%**
Fremont	1,773	367	**21%**
Redwood City	555	122	**22%**
Pacifica	269	61	**23%**
SILICON VALLEY	**22,178**	**5,404**	**24%**
Milpitas	619	155	**25%**
Scotts Valley	75	19	**25%**
East Palo Alto	347	89	**26%**
San Bruno	277	72	**26%**
Half Moon Bay	80	21	**26%**
San Jose	8,881	2,679	**30%**
Moss Beach	13	4	**31%**
Morgan Hill	386	121	**31%**
S. San Francisco	434	150	**35%**
Daly City	622	236	**38%**
Montara	13	5	**38%**
Union City	689	265	**38%**
Newark	399	155	**39%**
Gilroy	633	253	**40%**
San Martin	38	16	**42%**
Brisbane	23	10	**43%**

Number of Residential Foreclosure Sales

	Q1-Q3 2008	Q1-Q3 2009	% Change
Silicon Valley	8,894	5,401	**-39%**
California	238,396	139,115	**-42%**

Residential Foreclosure Activity

Foreclosure Sales as a Percentage of Home Sales
2009 Q1-Q3



Data Source: California RAND
Analysis and Cartography: Collaborative Economics

Commercial Space

PLACE

Commercial vacancies jumped 33 percent over the prior year, and office vacancy rates are at an all-time high since 1998.

Why Is This Important?

This indicator tracks the supply of commercial space, rates of commercial vacancy, and cost, which are leading indicators of regional economic activity. In addition to office space, commercial space includes R&D, industrial, and warehouse space. The change in the supply of commercial space, expressed as the absorption rate, reflects the amount of space rented, becoming available, and added through new construction. Gross absorption is a measure for total activity over a period while net absorption is the outcome. A negative change in the supply of commercial space shows a tightening in the commercial real estate market. The vacancy rate measures the amount of space that is not occupied. Increases in vacancy, as well as declines in rents, reflect slowing demand relative to supply.

How Are We Doing?

The continued decrease in demand for commercial real estate combined with the creation of 1.7 million square feet of new commercial space has caused the net change in occupied space (absorption rate) to drop further than the decline in 2007. From 2008 to 2009, net absorption decreased 61 percent from -6.6 million square feet to -10.7 million square feet.

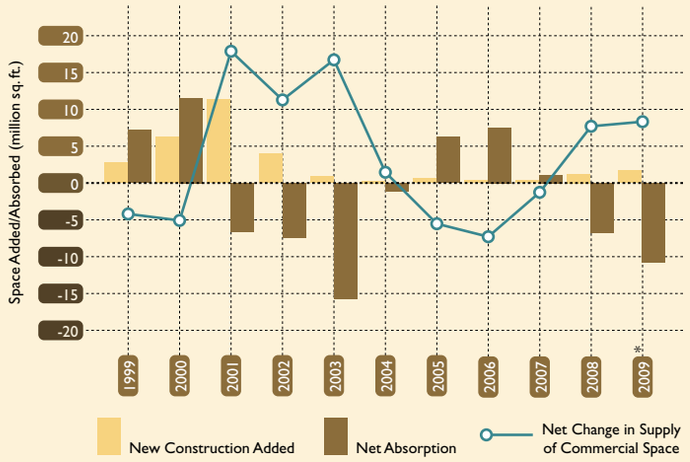
In 2009, vacancy rates continued their upward trend across all commercial space sectors, with an overall percent change increase of 33 percent over 2008. Warehouse vacancy rates increased by the largest margin of all commercial product categories with a percent increase of 57 percent.

All sectors experienced a decline in rents form 2008 to 2009: R&D (15%), Office (10%), Warehouse (10%) and Industrial (7%). As of October 2009, 1.7 million square feet (an 84% increase over 2008) of new commercial space construction has been added in Santa Clara County; all of this space is attributed to the office sector.

Commercial Space

Change in Supply of Commercial Space

Santa Clara County

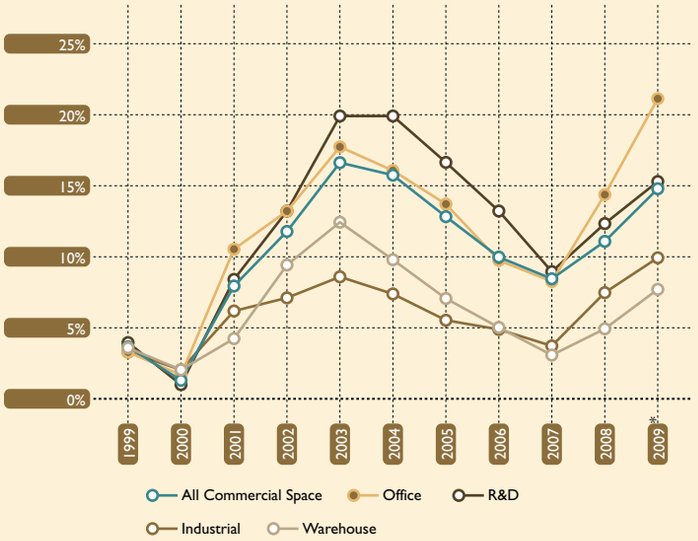


*As of October 2009
Data Source: Colliers International
Analysis: Collaborative Economics

Commercial Vacancy

Annual Rate of Commercial Vacancy

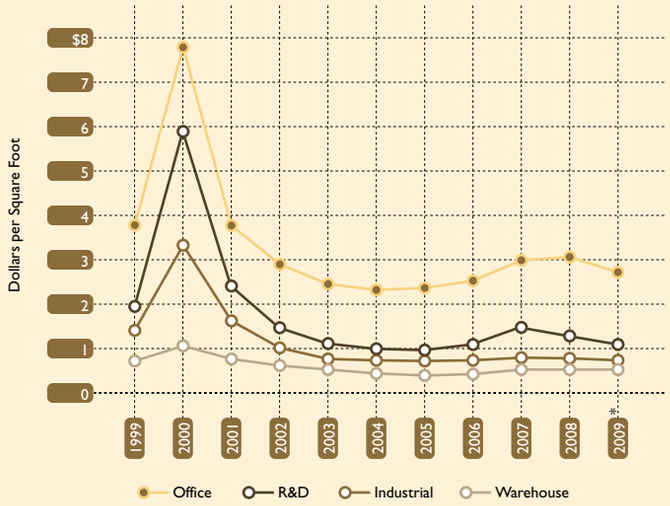
Santa Clara County



*As of October 2009
Data Source: Colliers International
Analysis: Collaborative Economics

Commercial Rents

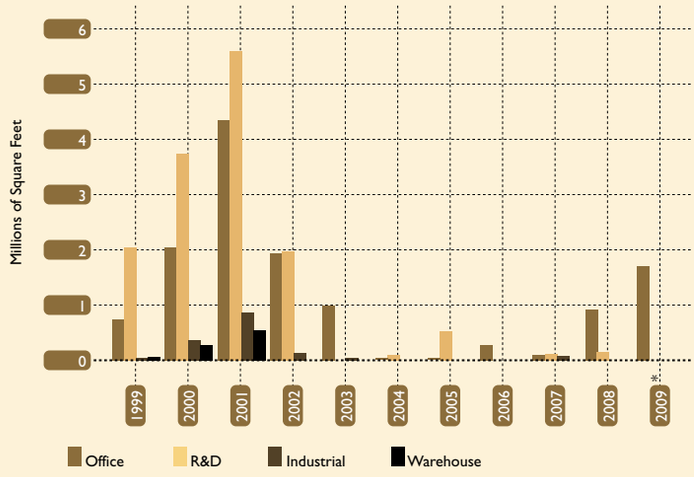
Annual Average Asking Rents
Santa Clara County



*As of October 2009
Data Source: Colliers International
Analysis: Collaborative Economics

New Commercial Development

By Sector
Santa Clara County



*As of October 2009
Data Source: Colliers International
Analysis: Collaborative Economics

Civic Engagement

The region's voter participation climbed in 2008.

Why Is This Important?

An engaged citizenry shares in the responsibility to advance the common good, is committed to place and has a level of trust in community institutions. Voter participation is an indicator of civic engagement and reflects community members' commitment to a democratic system, confidence in political institutions and optimism about the ability of individuals to affect public decision-making.

How Are We Doing?

The Nov. 4, 2008 general election provided one of the biggest voter turnouts in recent California election history. In this election, 62 percent of Silicon Valley eligible voters and 59 percent of California's eligible voters participated in the election. This compares to 51 percent Silicon Valley eligible voter turnout and 52 percent for California's eligible voter turnout in the 2000 general election.

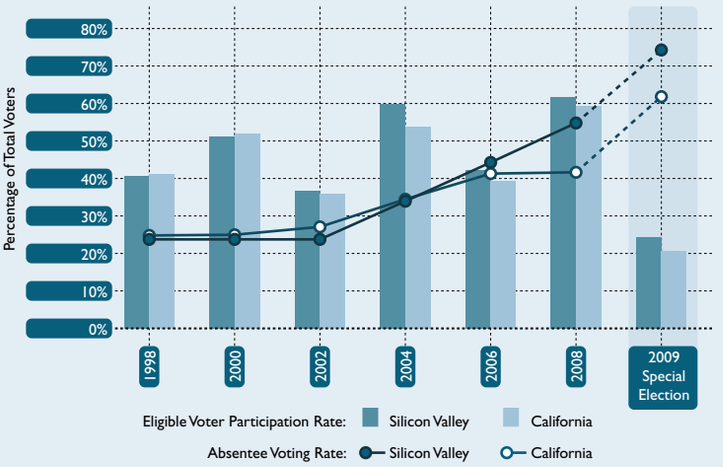
A substantially higher percentage of Silicon Valley's eligible voters (62%) voted in the 2008 general election than in the 2000 general election (51%).

The absentee voting rate continues to climb and at a faster rate in the Valley than statewide. In 2009, 74 percent of Silicon Valley voters submitted an absentee ballot compared to 24 percent in 2000. In California, 62 percent of voters voted absentee in 2008 compared to 25 percent in 2004. In the last year alone, Silicon Valley and California have experienced an increase in the absentee voting rate of 20 percent and 21 percent, respectively.

Voter Participation

Eligible Voter Participation Rate and Absentee Voting Rate

Santa Clara & San Mateo Counties and California



Note: All yearly figures are based upon general election date, excluding 2009 special election
Data Source: California Secretary of State, Elections Division
Analysis: Collaborative Economics

Change in Absentee Voting Rate

	2000	2009	2000-2009
Silicon Valley	24%	74%	+50%
California	25%	62%	+38%

Revenue

GOVERN

Since 2006, Silicon Valley has accounted for an increasing share of total state tax revenue.

Why Is This Important?

Governance is defined as the process of decision-making and the process by which decisions are implemented. Many factors influence the ability of local government to govern effectively, including the availability and management of resources. To maintain service levels and respond to a changing environment, local government revenue must be reliable. Local revenues are affected by economic fluctuations and by state takings of locally generated revenue.

Property tax revenue is the most stable source of city government revenue, fluctuating much less over time than do other sources of revenue, such as sales, hotel occupancy and other taxes. Since property tax revenue represents less than a quarter of all revenue, other revenue streams are critical in determining the overall volatility of local government funding. Municipalities can issue bonds to finance capital projects. Amassing excessive amounts of municipal debt obligations can lead to potential funding shortfalls in the future and also raise the cost associated with future debt.

How Are We Doing?

Although trends following 2007 are likely to be very different in response to the current economic downturn, total city revenue in the region has been on the rise since fiscal year 2004. Between fiscal years 2005-2006 and 2006-2007, total Silicon Valley revenue has grown by 3.4 percent. With an increase of 12.4 percent since 2006, property tax accounts for the highest growing revenue source. Other revenue sources account for nearly half of total revenue in the region and increased six percent since 2006; these include intergovernmental transfers, special benefit assessments, fines, permits, and investments.

Relative to 1990, city revenues have grown in all areas except sales tax. While sales tax revenues were 14 percent lower in fiscal year 2007 relative to 1990, revenues from property tax more than doubled, other tax revenue grew by 72 percent, and revenue from other sources increased 64 percent.

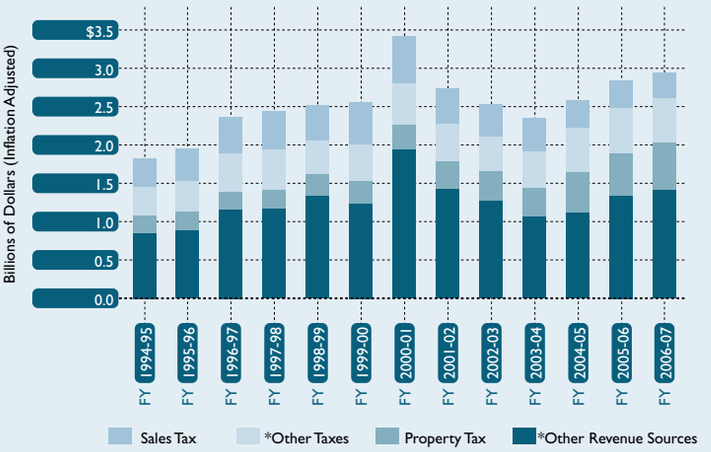
Since 1999, there have been more than 2000 debt issuances on behalf of public entities in San Mateo and Santa Clara Counties. Public entities in San Mateo and Santa Clara Counties have issued on average a combined annual municipal debt of $2.8 billion since 1999. In the past ten years, the most debt has been issued to fund education - nearly $850 million every year on average. Total municipal debt including short term, long term and notes, has fluctuated over the past 10 years, with peaks in both 2002 ($3.5 billion) and 2006 ($4 billion). Low municipal debt levels were observed in 2000 ($1.8 billion) and 2004 ($2.3 billion). As of July, 2009, public entities in San Mateo and Santa Clara Counties have issued $1.2 billion.

With comparatively high income levels relative to the state, Silicon Valley accounts for a large share of total state tax revenue. In 2008, the region contributed 16 percent of state revenues from personal income tax while accounting for seven percent of California's population. Silicon Valley's contribution to California tax revenue through personal income tax has steadily increased since 2006, with a one percent increase in each of the past two years. The region's share of state tax revenue reached a high in 2000, accounting for 24 percent of state tax revenue.

City Revenue

Aggregate Silicon Valley Revenue by Source

Silicon Valley



*Other Taxes and Other Revenue include revenue sources such as transportation taxes, transient lodging taxes, business license fees, other non-property taxes and intergovernmental transfers

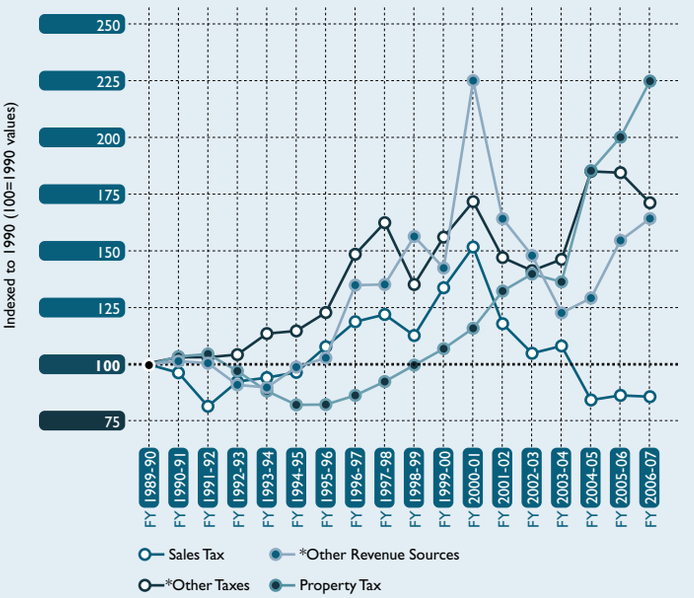
Data Source: California State Controller's Office

Analysis: Collaborative Economics

City Revenue Trends

Growth in City Revenues since 1990

Silicon Valley



*Other Taxes and Other Revenue include revenue sources such as transportation taxes, transient lodging taxes, business license fees, other non-property taxes and intergovernmental transfers

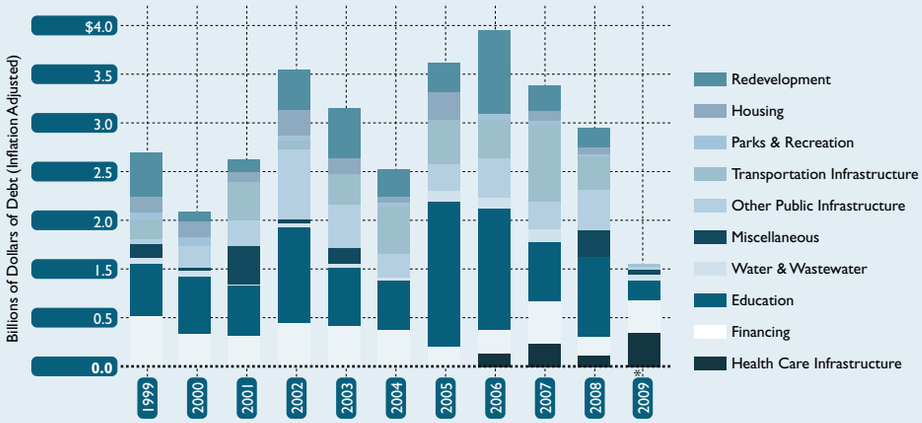
Data Source: California State Controller's Office

Analysis: Collaborative Economics

Municipal Debt Obligations

Issued by Category

San Mateo & Santa Clara Counties

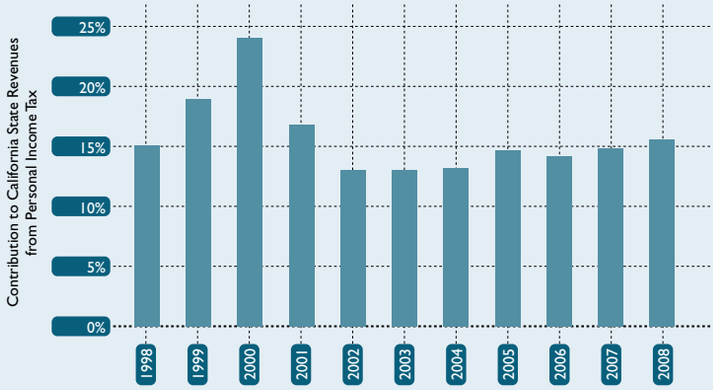


*As of July 2009
Data Source: California State Treasurer's Office
Analysis: Collaborative Economics

Regional-State Interface

Contribution to California State Revenues from Personal Income Tax

Santa Clara & San Mateo Counties



Data Source: California Franchise Tax Board, Economic and Statistical Research Bureau
Analysis: Collaborative Economics

continued from page 11

1. GLOBAL CONNECTIONS CONTINUE TO EXPAND

Maintaining global connections with other innovative regions is vital. Silicon Valley's deep linkages with other innovation centers in the world accelerate and expand learning by firms and institutions. By integrating globally, regions can achieve higher productivity and higher wages for their workers as well as higher profits for their firms.[1]

But how have Silicon Valley's global linkages in terms of talent, patent collaboration and investment changed given the current economic crisis? In the current global economic crisis, China is rebounding while in the U.S. and the Euro Area, shrinkage is expected to slow by 2010. How are the economies of our top global partners faring, and how will this impact Silicon Valley's recovery? Overall, our economy is becoming more integrated with the global economy in terms of investment, idea and talent flows.

Investment Flows between Silicon Valley and Abroad Are Growing

Silicon Valley is increasingly investing venture capital in international markets. This activity builds strong interpersonal connections between global regions, facilitates an exchange of technical know-how and also of business practices.[2] While total venture capital investments from Silicon Valley increased almost 15 percent ($57 billion to $65.4 billion) over the past ten years, foreign investments by Silicon Valley venture capital firms more than tripled (4% to more than 12% of total venture capital from Silicon Valley) over that same period.

Since 2000, China has been the preferred foreign market for Silicon Valley venture capital. Between 2006 and 2008, Chinese companies received more than $2.2 billion in venture capital from Silicon Valley investors, nearly double the amount received by Denmark ($1.1 billion) the second-ranked market during that same period.

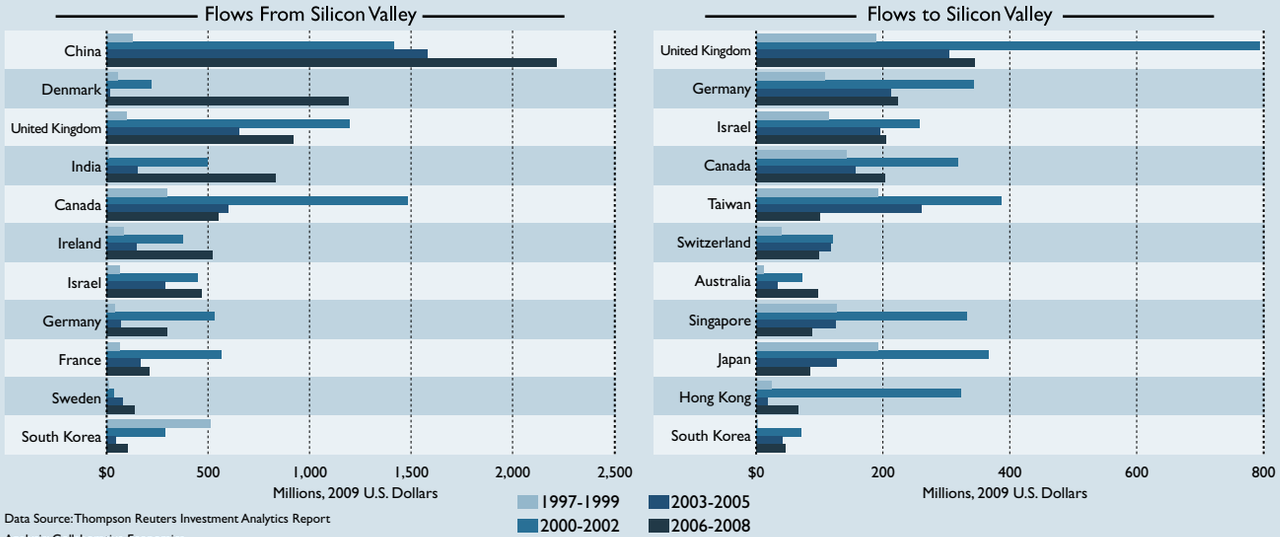
In terms of flows to Silicon Valley, the United Kingdom has been the largest source of foreign venture capital investment over the past decade. Germany, Israel, and Switzerland have also become significant sources of venture capital for Silicon Valley. Over the entire period, Germany moved up from 7th to the 2nd largest source of foreign venture capital funding in Silicon Valley. Similarly, Israel climbed from 6th to 3rd place in total investment to Silicon Valley while Switzerland rose from 10th to 6th place.

Conversely, the relative significance of venture capital investment from Taiwan and Japan has decreased. In 1999 Taiwan led all foreign investors with approximately $193 million in venture capital investment in Silicon Valley; by 2008 Taiwan had fallen to 5th and the level of investment had fallen to $100.6 million. Similarly, the $191 million received from Japan in the 1997-1999 period ranked 3rd behind Taiwan and the United Kingdom. By 2008, Japan had fallen to 9th as its venture capital investment in Silicon Valley fell to approximately $85.7 million.

Venture Capital Investment

Flows Between Silicon Valley and Countries

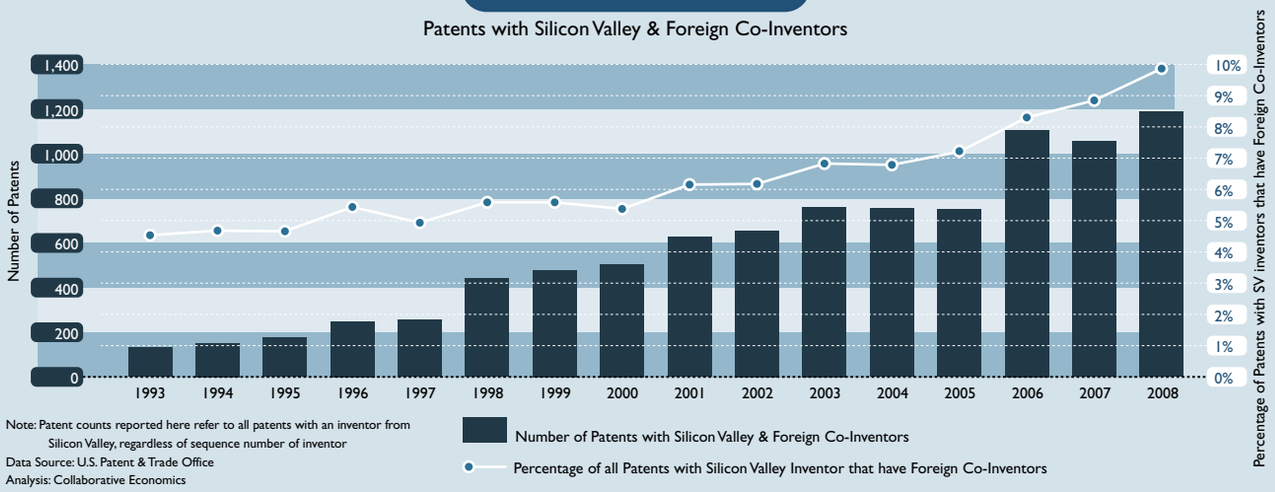
Top Countries by Total Investment in 2006-2008



Data Source: Thompson Reuters Investment Analytics Report

Analysis: Collaborative Economics

Global Collaborations



Note: Patent counts reported here refer to all patents with an inventor from Silicon Valley, regardless of sequence number of inventor
Data Source: U.S. Patent & Trade Office
Analysis: Collaborative Economics

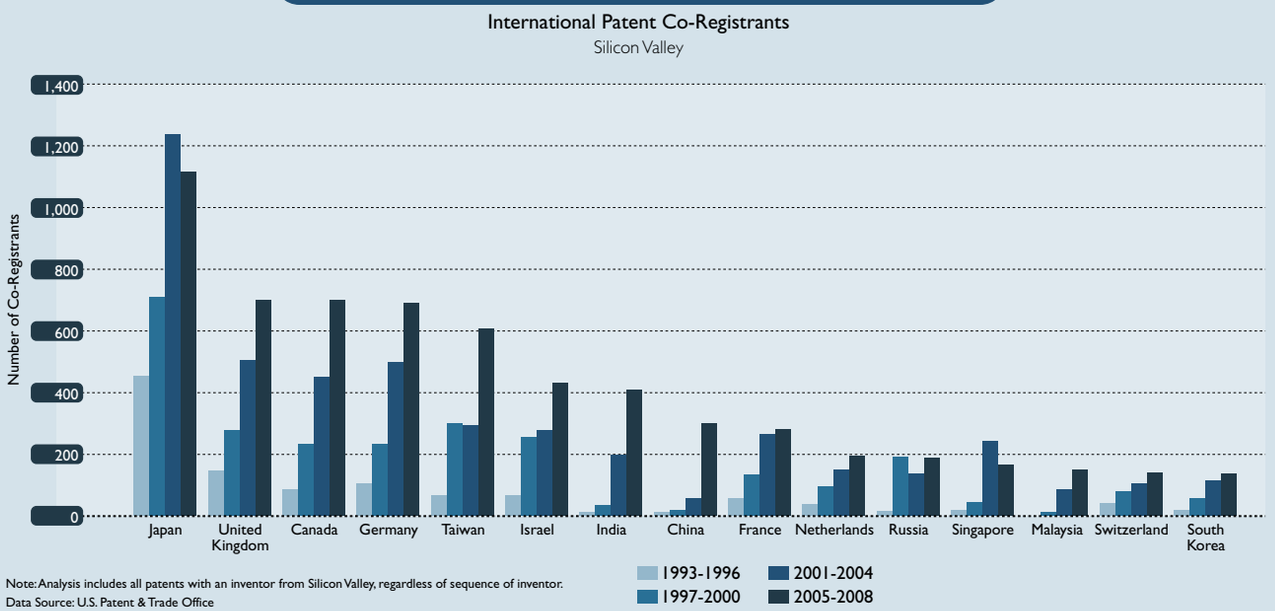
International Patent Collaboration Continues to Rise

Patent registrations that include co-inventors from Silicon Valley and inventors outside the U.S. increased in number by 13 percent between 2007 and 2008 and represent a growing percentage of all patents with inventors from the region. This bodes well for innovation in the region, because it illustrates that knowledge flows are increasing between talent here and in other wellsprings of innovation in the world.

The patterns of patent collaboration are changing. Japan is by far Silicon Valley's top partner in patent collaboration; however, activity is slowing. The next rung of activity has consistently been held by the U.K., Canada and Germany and now Taiwan has caught up.

Silicon Valley's co-patenting has increased at a faster rate with emerging economies. For example, activity has increased by a factor of 57 with India and a factor of 48 with China since the early 1990s. Over the most recent two periods (2001-2004 and 2006-2008), China has overtaken seven top ranked collaborator countries; and Taiwan, Israel, and India have overtaken France.

Global Patent Collaboration by Top Partner Country



Note: Analysis includes all patents with an inventor from Silicon Valley, regardless of sequence of inventor.
Data Source: U.S. Patent & Trade Office
Analysis: Collaborative Economics

The Region is Dependent on Global Talent Flows

A significant factor in Silicon Valley's history has been the valuable contribution of immigrant entrepreneurs in the region. Many arrived as students in the broader region, and while building their networks here and maintaining close ties with their home countries, these individuals laid the foundations of Silicon Valley's strong global connections. When a region can both produce high-quality university graduates and attract highly-skilled talent from abroad, the region not only benefits from steady streams of talent but also creates valuable opportunities for closer integration with other countries. AnnaLee Saxenian, from the University of California at Berkeley, has observed that because of their shared language, culture, and professional and educational experiences, these global professionals possess the skills necessary for long-distance collaboration and global product management.[3]

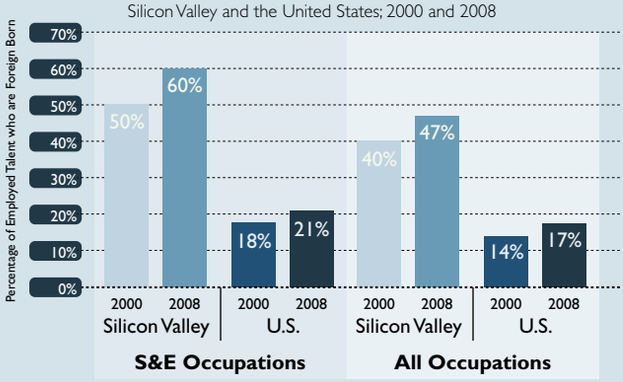
Sixty percent of Silicon Valley's science and engineering (S&E) workforce was born outside the U.S. Nationally, this is the case for only 21 percent. Across all occupations, the percentage of foreign-born workers is growing and growing at a faster rate in the region than nationally.

The largest number and fastest growing group of foreign-born S&E talent in the region is from India. Accounting for 20 percent in 2000, Indians now make up 28 percent of the Valley's S&E talent. Talent flows from China and Korea are also growing in share.

As the region is becoming increasingly dependent on foreign-born talent, an area of vulnerability is revealed in the dropping number of S&E degrees conferred nationally and to foreign-born students in the region. As the total number of S&E degrees conferred in the U.S. has dropped ten percent since 2004, the number of S&E degrees conferred to foreign students in the broader Silicon Valley region has been falling since 2005. The U.S. is falling back in its generation of S&E talent, and as educational and economic opportunities improve in other parts of the world, fewer students are coming to the U.S. to study

Foreign-Born Talent

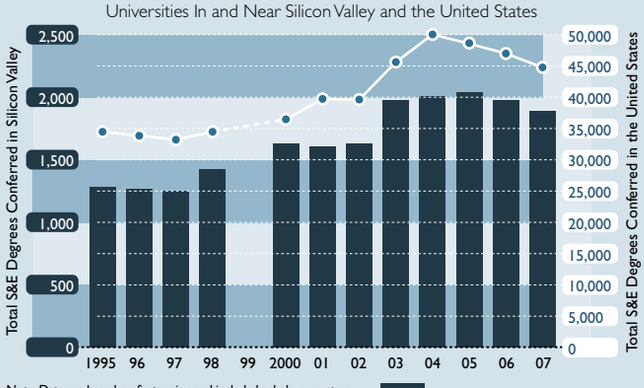
Percentage of Employed Talent who are Foreign Born
Silicon Valley and the United States; 2000 and 2008



Note: Foreign-born includes people born in U.S. territories/island areas
Data Source: U.S. Census Bureau, 2000 Decennial PUMS, 2008 American Community Survey PUMS
Analysis: Collaborative Economics

Total Science & Engineering Degrees

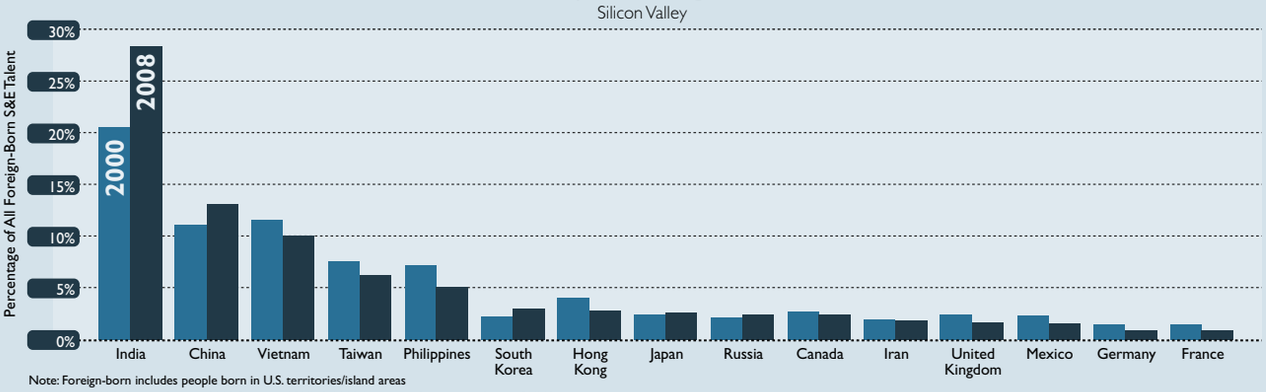
Conferred to Temporary Nonpermanent Residents
Universities In and Near Silicon Valley and the United States



Note: Data are based on first major and include bachelors, masters and doctorate degrees. Data for 1999 is not available.
Data Source: National Center for Educational Statistics, IPEDS
Analysis: Collaborative Economics

Foreign-Born Science & Engineering Talent

by Place of Origin
Silicon Valley



Note: Foreign-born includes people born in U.S. territories/island areas
Data Source: U.S. Census Bureau, 2000 Decennial PUMS, 2008 American Community Survey PUMS
Analysis: Collaborative Economics

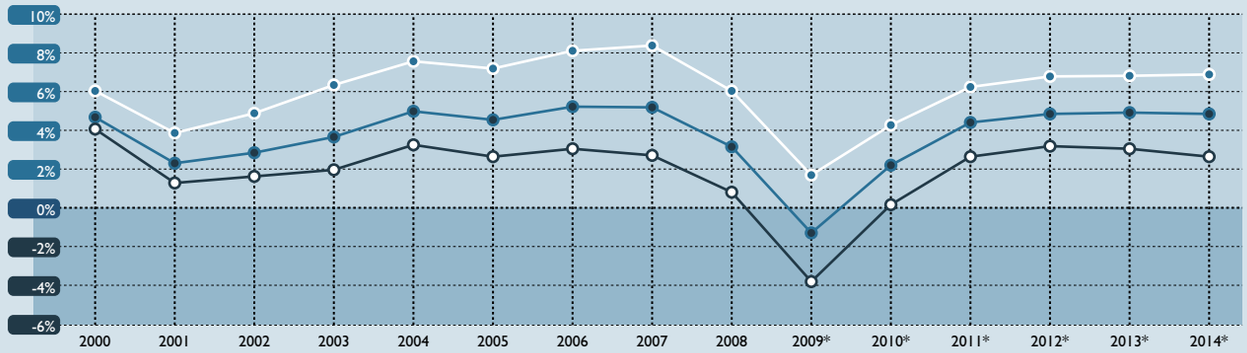
Growth in Emerging Markets will Continue to Outpace Advanced Economies

The current recession has truly been global in scope, affecting emerging and advanced economies alike. Between 2008 and 2009, real GDP growth declined by 4.5 percent in emerging and developing economies and by 4.7 percent in advanced economies.

The International Monetary Fund is projecting the advanced economies to remain flat (0% growth) in 2010, while the growth rate of emerging and developing economies will climb to four percent. As the recovery slowly surfaces in advanced economies, more opportunities will arise in the emerging and developing economies. This may have real implications for Silicon Valley's continued ability to attract the world's top talent.

Real GDP Growth

Annual Percent Change



*Data is current through September of 2009 and projected for remaining years
Data Source: International Monetary Fund, World Economic Outlook Database, April 2009
Analysis: Collaborative Economics

2. CONTINUED TALENT ATTRACTION AND DEVELOPMENT IS ESSENTIAL BUT THREATENED

Besides maintaining linkages to global talent pools, Silicon Valley must continue to attract top, young talent and retain experienced talent in order to maintain its global competitive edge. Total inflows of core talent aged 35-54 are down from 2000; however, the talent still moving to the region is increasingly highly skilled.

These high-skilled jobs are increasingly filled by people from outside the U.S.; however, as illustrated in the preceding section, the flows of foreign students to the region are waning as opportunities grow in the emerging economies. Furthermore, state general fund spending on higher education dropped 17 percent in 2008, and total spending per student dropped 19 percent. These trends suggest that the continued supply of top, qualified talent in the region is in question.

Silicon Valley Is Increasingly Dependent on Global Flows for Highly Skilled Talent

Understandably, since 2000, total talent flows into the region have slowed; however, the characteristics of the flows have changed. In both 2000 and 2008, half of the region's employed workers between the ages of 35 and 54 who moved to the region in the previous year had at least a four-year degree. However, since 2000, the inflows of the core talent base are increasingly specialized in science and engineering (S&E) and born outside the U.S.

Across all occupations, highly educated U.S.-born migrants accounted for 56 percent and foreign-born 44 percent in 2000. In 2008, this distribution flipped. Additionally, foreign-born S&E talent with higher degrees accounted for 72 percent of total inflows in 2008, up from 60 percent in 2000.

Silicon Valley's total S&E talent base is growing in number and increasingly foreign born. These trends are far more pronounced in the region than nationally. Between 2000 and 2008, the total number of S&E workers increased twelve percent in the Valley and 16 percent nationally. Over the same period, the foreign-born share of the region's S&E workforce increased from 50 percent to 60 percent.

Talent Mobility of Core Workforce Age 35-54

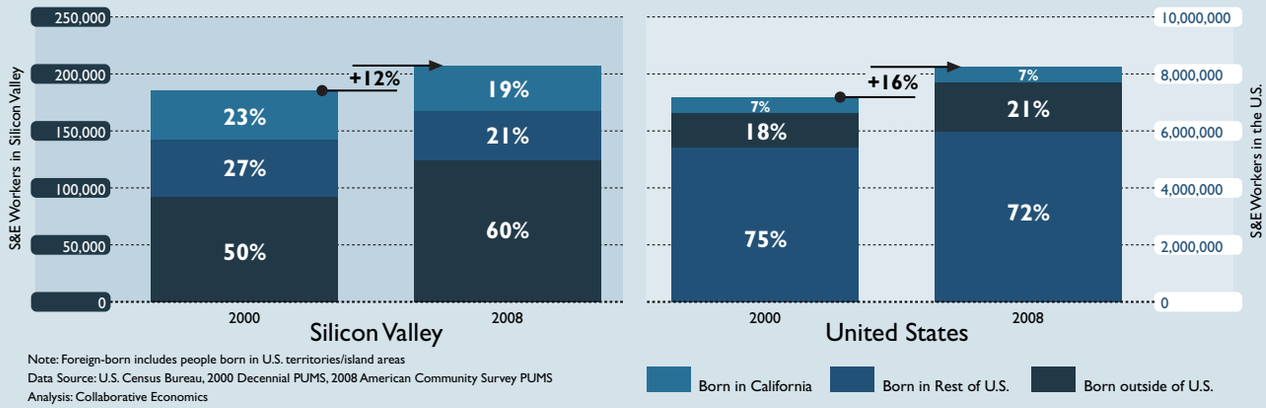
Origin Of Employed Talent Moving to Silicon Valley

EDUCATIONAL ATTAINMENT	OCCUPATIONS	PLACE OF ORIGIN	2000			2008		
			Total Talent	U.S.-Born	Foreign-Born	Total Talent	U.S.-Born	Foreign Born
All Education Levels	All	Domestic	234,407	61%	39%	59,160	43%	57%
		Foreign	24,267	11%	89%	2,938	14%	86%
		Total	**258,674**	**56%**	**44%**	**62,098**	**42%**	**58%**
	S&E	Domestic	39,347	51%	49%	11,825	31%	69%
		Foreign	5,387	7%	93%	1,016	0%	100%
		Total	**44,734**	**46%**	**54%**	**12,841**	**29%**	**71%**
Bachelor's Degree or Higher	All	Domestic	112,888	60%	40%	29,869	48%	52%
		Foreign	13,874	12%	88%	2,003	10%	90%
		Total	**126,762**	**55%**	**45%**	**31,872**	**45%**	**55%**
	S&E	Domestic	30,245	46%	54%	10,640	31%	69%
		Foreign	4,903	7%	93%	1,016	0%	100%
		Total	**35,148**	**40%**	**60%**	**11,656**	**28%**	**72%**

Note: Migration within California includes people who moved within Silicon Valley in the last year. Foreign-born includes people born in U.S. territories/island areas.
Data Source: U.S. Census Bureau, 2000 Decennial PUMS, 2008 American Community Survey PUMS
Analysis: Collaborative Economics

Science & Engineering Talent by Place of Origin

Silicon Valley and the United States



Note: Foreign-born includes people born in U.S. territories/island areas
Data Source: U.S. Census Bureau, 2000 Decennial PUMS, 2008 American Community Survey PUMS
Analysis: Collaborative Economics

The Region Has Highly Specialized Occupational Needs

In addition to the jobs every community needs to support vital services, Silicon Valley requires a highly specialized mix of skills, particularly concentrated in science and engineering, as demanded by its unique industry base. This means that in order for the region to flourish, its companies need to be able to attract top talent to the region. If talent inflows from abroad become less reliable, the region will depend more on the development of domestic talent which will require the strong commitment of public leaders largely outside the region to investment in education and training.

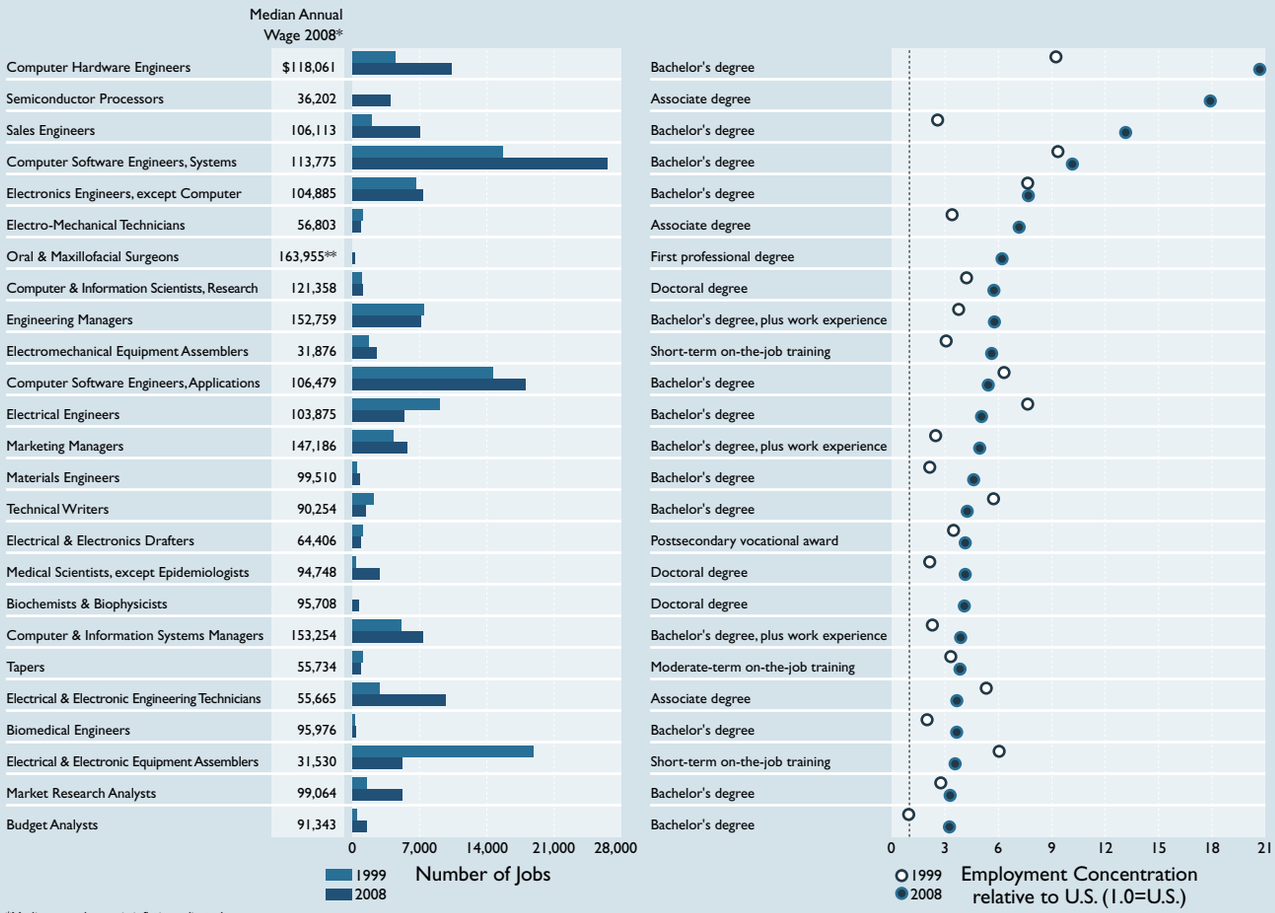
Twenty-one of the 25 most highly concentrated occupations in Silicon Valley are in science and engineering. Since 1999, seven of these occupations have doubled in concentration. Training requirements and earnings for the region's most concentrated occupations vary widely. All of the 25 most concentrated occupations that are becoming more highly concentrated in the region and that are also increasing in number require at least a four-year degree. This is also the case for all of these occupations that have at least doubled in number in the region over the last decade.

These changes in occupational demand are reflective of changes taking place in the region's industrial mix and business practices relative to national trends. For example:

- *Sales Engineers (people with technical skills who support sales and support activities) were 2.6 times more concentrated in the region than nationally in 1999; by 2008, they were 13 times more concentrated. In total employment, this group tripled in size.*
- *Budget Analysts more than tripled in numbers. Compared to the national average, Budget Analysts in Silicon Valley accounted for a smaller percentage of employment in 1999, but in 2008 they were more than three-times more concentrated than the nation.*
- *The largest employment increase of the 25 most highly concentrated occupations was the 6.8 fold growth in Medical Scientists (excluding Epidemiologists).*

Occupational Growth in Silicon Valley

by Most Concentrated Occupations, 1999 and 2008



*Median annual wage is inflation adjusted
**California median annual wage used
Note: Silicon Valley data is for San Jose-Sunnyvale-Santa Clara MSA. Prior to 2005, San Benito was not included in MSA
Data Source: Bureau of Labor Statistics, Occupational Employment Statistics, September 2009
Analysis: Collaborative Economics

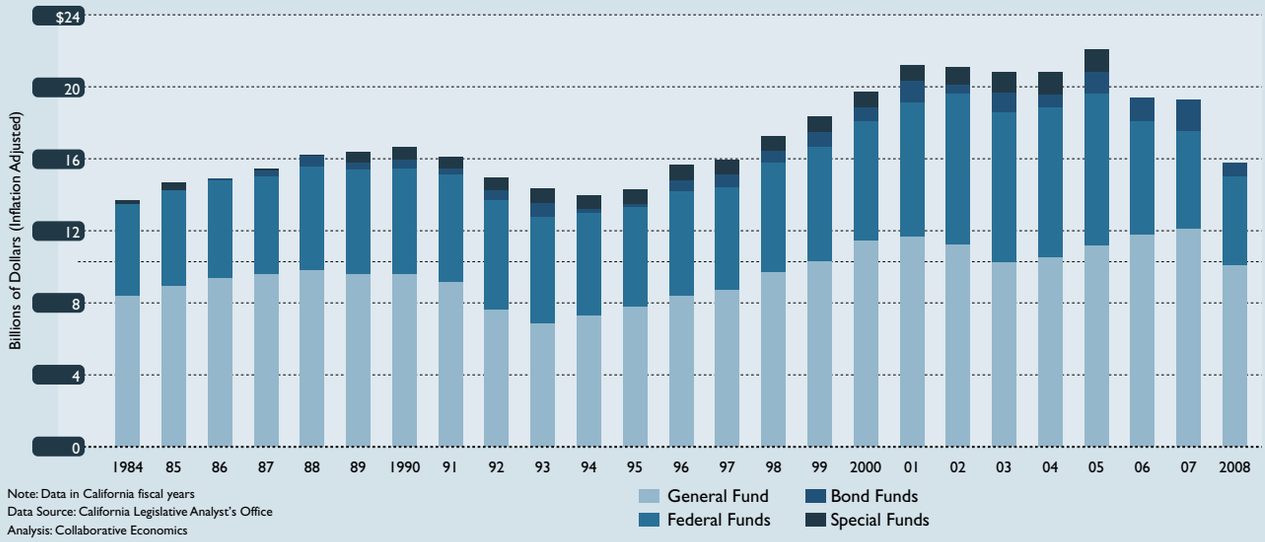
Statewide Spending on Higher Education is Waning

Total statewide spending on higher education in 2008 dropped 18 percent from the previous year to a total of $15.9 billion. On average, state general fund spending has accounted for 56 percent of all higher education spending in California over the last 25 years, while federal funding has accounted for 37 percent. While state funding of higher education has been falling, the cost of higher education has continued to rise, which is resulting in continued student fee increases and falling enrollment.

In the last year, total general fund spending on higher education decreased 17 percent, while general fund spending per student decreased 19 percent.

Higher Education Funding of Public Institutions

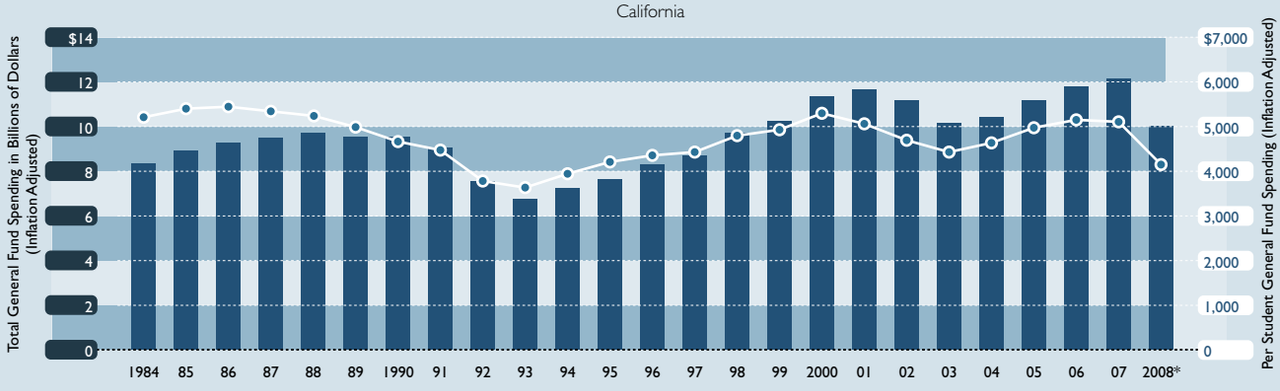
Spending by Fund Source
California



Note: Data in California fiscal years
Data Source: California Legislative Analyst's Office
Analysis: Collaborative Economics

Higher Education Funding of Public Institutions

Total and per Student General Fund Spending
California



* Data for enrollment is based upon projections
Note: Data in California fiscal years
Data Source: California Legislative Analyst's Office and the California Postsecondary Education Commission
Analysis: Collaborative Economics

3. VENTURE CAPITAL INVESTMENT IS RETURNING AND HEADING INTO NEW AREAS

Silicon Valley has experienced many different waves of innovation driven by new technology, changing public policy, and other factors. Examining shifts in venture capital investment patterns helps to illustrate how the region's industrial mix is evolving. While total investment has been down in 2009 with an uptick in the third quarter, the distribution of investment across industries offers valuable insight.

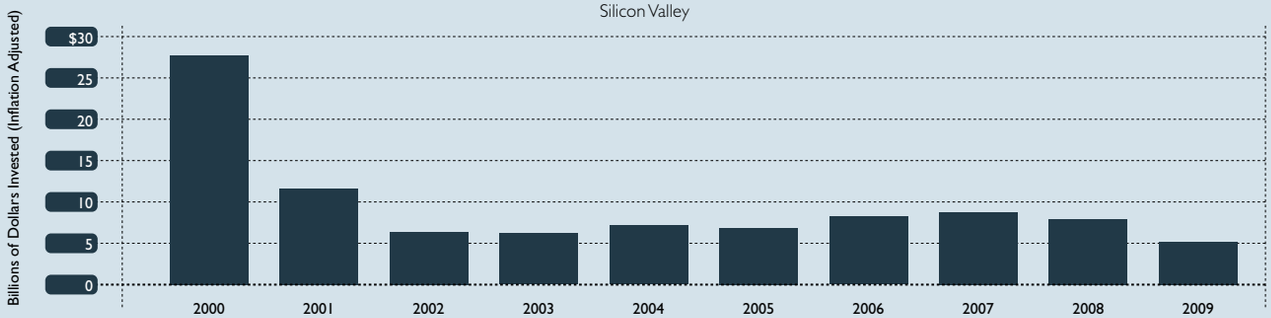
Since 2002, the software industry has continued to attract the largest percentage of total venture capital investment in the region; however, it has dropped from 25 percent to 20 percent as opportunities in other industries have grown. Venture capital investment in networking and equipment has been on a downward trend since 2002, when the industry ranked second behind software; however, investment in networking and equipment did increase by 13 percent between 2008 and 2009.

Over most of the period, semiconductors attracted the next largest share of venture capital investment after software. In 2008, it was displaced by biotechnology and medical devices, while in 2009 industrial/energy took the second spot behind software. Venture capital investment in the areas of industrial/energy, medical devices, and biotechnology have now outpaced investment in semiconductors.

Top Growers since 2002
- Industrial/Energy
- Media & Entertainment
- Biotechnology
- Medical Devices

Venture Capital Investment

Billions of Dollars Invested
Silicon Valley



Data Source: PricewaterhouseCoopers/National Venture Capital Association MoneyTree™ Report, Thomson Reuters
Analysis: Collaborative Economics

4. STATE AND FEDERAL POLICY IS CRITICAL TO THE REGION'S SUCCESS

State policy has always been critical to the region's success, and never more so than now. However, the inability of the state to make major decisions and the resulting budget crisis has led to disinvestment in a range of critical public services and an erosion in the region's quality of life.

Historically, the Federal government has played an important role in the emergence of Silicon Valley as a high technology region and throughout its development. Its most vital role has been to invest in research and development (R&D), and in the procurement of high-tech products and services. In addition to the direct weapons procurement during the Cold War, Silicon Valley attracted funding through the Advanced Research Projects Agency (ARPA) resulting in the creation of the internet among other things. However, according to findings of a recent study by the Organization for Economic Cooperation and Development (OECD), U.S. Federal policy may be currently undermining innovation, obstructing global talent flows, and offering one of the least generous R&D tax credits of all OECD countries.[4]

Current DARPA (Department of Defense) spending is investing in game-changing technologies that will support the needs of U.S. troops such as compact fuel cells, mobile renewable energy systems, and algal aviation fuel.[5] Civilians will eventually also benefit from these new products. In 2007, ARPA-E was created to support the rapid development of clean energy technology, and the program now has $400 million from the stimulus package.[6] This is in addition to the $3.5 billion in stimulus funds for the development of renewable technologies. As of January 2010, cleantech manufacturers in the region have been awarded $260 million in federal tax credits and accounted for 11 percent of the national total. Awarded on a competitive basis, these projects were judged according to their commercial viability, technological innovation, completion date, job creation and potential for reducing greenhouse gas emissions. With our emerging clean energy economy, Silicon Valley should be well positioned to attract funding on a competitive basis from these programs for a wide range or related projects.

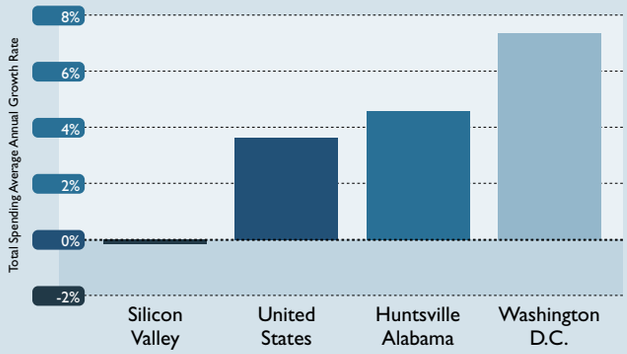
Federal Procurement Spending has Slowed

Yet Silicon Valley has been slipping in its attraction of federal procurement dollars, since peaking in 1994. While total federal procurement spending has increased at an average annual rate of nearly four percent over the last 15 years, spending in Silicon Valley has decreased by a tenth of a percent on an annual rate. In contrast, spending in Huntsville, Alabama and Washington D.C. over the same period has exceeded the national average, increasing 4.5 percent and 7.2 percent respectively.

In 2008, Silicon Valley received $ 6.7 billion in procurement spending from the federal government, representing 1.3 percent of total federal procurement spending, slightly higher than that of Huntsville. In 1993, the region accounted for over two percent of total federal procurement. Up from eight percent in 1993, Washington D.C. accounted for 13.4 percent of total federal procurement spending in 2008.

Federal Procurement

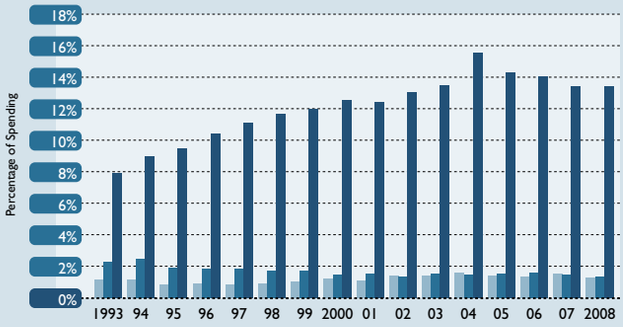
Total Spending Average Annual Growth Rate from 1993 to 2008



Note: Data in U.S. Fiscal Years
Data Source: U.S. Census Bureau, Governments Division, Federal, State, and Local Government Consolidated Funds Report
Analysis: Collaborative Economics

Total Federal Procurement

Percentage of Spending
Silicon Valley; Huntsville, Alabama; Washington D.C.



Note: Data in U.S. Fiscal Years
Data Source: U.S. Census Bureau, Governments Division, Federal, State, and Local Government Consolidated Funds Report
Analysis: Collaborative Economics

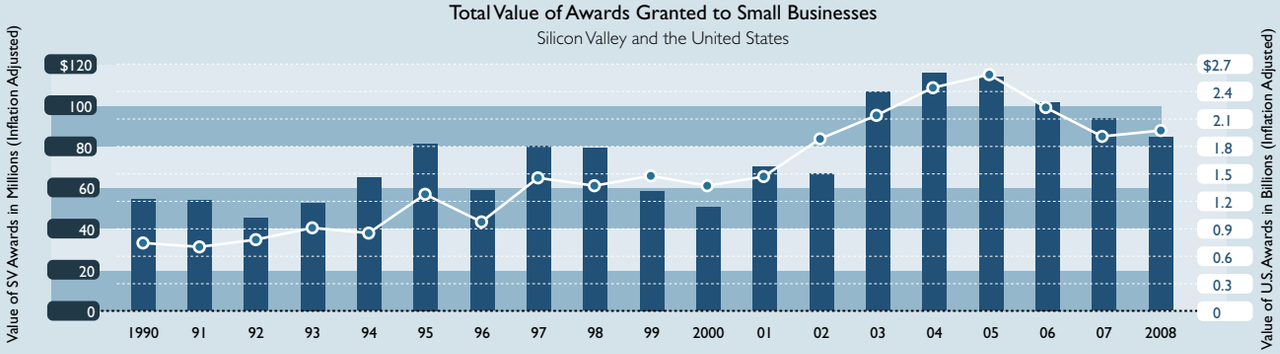
Federal Funding for Small Business Innovative Research

Federal funding for small business innovation in Silicon Valley has been on the decline since 2004 in both the number of grants and dollars awarded. Nationally, Small Business Innovation Research (SBIR) Awards have increased in number and in total funding. The SBIR Awards program provides funding to small innovative companies to spur development and the commercialization of ideas into products and services. There are two phases of awards, with the second phase depending upon the success of the first phase and also providing a larger amount of funding.

Silicon Valley attracted over $84.5 million in total awards for SBIR and STTR phase 1 and 2 in 2008. While this represents an increase of 56 percent since 1990, it is a 27 percent drop since 2004. This drop is steeper than the 19 percent reduction in total national SBIR funding since 2004.

Small Business Innovation and Technology Awards

Total Value of Awards Granted to Small Businesses
Silicon Valley and the United States



Note: Small Business Innovation Research (SBIR) Awards and Small Business Technology Transfer (STTR) are included data
Data Source: U.S. Small Business Administration, Office of Technology
Analysis: Collaborative Economics

ARE WE A REGION AT RISK?

Yes. Silicon Valley has become a globally connected region, but we require a highly fertile innovation habitat in order to respond to complex forces of technology, demographic and policy change. The material presented here indicates there are clear warning signs:

- *We cannot continue to rely on foreign talent to fill some of the most concentrated and growing areas of employment in our region.*
- *Silicon Valley may be lagging behind other regions in federal investments in R&D and procurement, especially at a time when the federal government has reemerged as a major force in the economy at a level not seen since World War II.*
- *State policy is not supporting our innovative economy and community, especially as seen by cutbacks in higher education, but also as a result of budgetary gridlock and governance failure.*

To be sure, Silicon Valley does have many of the key ingredients necessary for a resilient region. We still have a strong talent base and outstanding technology assets. Our entrepreneurs are agile in their ability to move into new global markets. As demonstrated by the recent shift into clean energy, Silicon Valley firms can move quickly toward emerging opportunities.

What may be the most critical ingredient is the ability of regional stakeholders from business, government, education and the community to work together to solve major challenges. We as a region—defined as a regional community that defines a set of common interests—must recognize these challenges—both external and internal—and act in an intentional way to address them.

We need to be both innovative and resilient to succeed in a future where uncertainty will be the new normal. **Without investment in our talent and technology base and supportive state and federal policies, we will not be able to take advantage of the strengths of our global connections. Above all, we need a shift in our mindset from one of complacency to one that recognizes the challenges that we face and mobilizes to address them as a regional community.**

TWO KEY DETERMINANTS OF SUCCESS IN SILICON VALLEY

	SIGNS OF RESILIENCE	SIGNS OF VULNERABILITY
TALENT	We continue to attract global talent: 60% of S&E talent (and 47% of all workers) were foreign-born in 2008, compared to 50% (and 40% of all workers) in 2000. We are particularly a magnet for talent from emerging economies: most of global talent flow since 2000 has been from India and China We are attracting talent that is increasingly highly skilled: 51% of new arrivals in 2008 had bachelors' degrees or higher (versus 49% in 2000). This high-skilled talent is increasingly foreign-born: 72% of migrants with S&E bachelors' degrees or higher were foreign-born (versus 60% in 2000).	We are relying on foreign in-migration to grow our S&E talent base: since 2000, the absolute number and relative share of California and U.S.-born S&E talent has dropped. We face increasing competition for talent: emerging economies have grown rapidly over the past decade, and are likely to recover faster than advanced economies We are educating less foreign talent here: the number of S&E degrees conferred to foreign students has dropped since 2004-2005 in both Silicon Valley and the U.S. We are faced with disinvestment in the public higher education system: state spending dropped 17% in 2008. We need increasing numbers of highly-educated people to fuel our economy: 19 of the region's top 25 most concentrated occupations require a four-year degree.
TECHNOLOGY	We are benefiting from a growing number of global innovation partners: co-patenting is on the rise with partners in both advanced and emerging economies, and now represents almost 10% of total patents. We continue to attract investment and are increasingly attractive to top foreign funders: Silicon Valley venture capital up 15% to $65 billion over past decade. VC investment in Silicon Valley from foreign funders has risen in recent years. We are investing in other countries: Foreign investments by Silicon Valley VCs tripled over the past decade (from 4% to 12% of total investments). We are investing in both long-standing strengths and new areas of innovation: Software and semiconductors continue to draw large shares of VC; however, since 2002, growing areas are industrial/energy, media/entertainment, biotechnology, and medical devices.	We have seen some declines in foreign investment in Silicon Valley: some key countries decreased their investment in the region in the past five years (Taiwan, Japan, Switzerland, Singapore) We experienced a substantial drop in VC investment in 2009: while there has been an increase in 3rd quarter 2009 investment levels, we are clearly vulnerable to global financial turbulence. We are not a major player in federal R&D funding: Silicon Valley receives just over one percent of federal procurement, well behind Washington D.C. (13%). If anything, we have lost ground to other regions since the early 1990s: The average annual growth rate for federal procurement is over 3.5 percent; regions like Washington D.C. (7.2%) and Huntsville (4.5%) have attracted increasing levels of funding, while Silicon Valley's levels have declined.

Endnotes

[1] As John Hagel and John Seely Brown explain it, it is not enough for firms to produce abroad and collaborate with suppliers, firms must form "creation networks" on a global basis. (John Hagel and John Seely Brown. 2005. The Only Sustainable Edge. Why Business Strategy depends on Productive Friction and Dynamic Specialization. Boston: Harvard Business School Press.) AnnaLee Saxenian contends that "brain circulation" among regions is driving global integration. (AnnaLee Saxenian. 2006. The New Argonauts. Regional Advantage in a Global Economy. Cambridge: Harvard University Press.) New research sponsored by the Small Business Administration points again to the important contribution to innovation and economic vitality that immigrant entrepreneurs make in the technology fields. (David M. Hart, Zoltan J. Acs, and Spencer L. Tracy, Jr. 2009. "High-tech Immigrant Entrepreneurship in the United States." Small Business Administration. Corporate Research Board, LLC.)

[2] Foreign investment can take different forms such as a company opening an affiliate in the U.S. or investors from abroad investing in venture capital funds here. When a foreign company opens an affiliate in Silicon Valley, a new avenue for the exchange of knowledge is also opened.

[3] AnnaLee Saxenian. 2006. The New Argonauts. Regional Advantage in a Global Economy. Cambridge: Harvard University Press. Page 328.

[4] OECD 2009

[5] Steve LeVine. 2009. "Can the Military Find the Answer to Alternative Energy?" The Outlook for Energy. Business Week. (July 23, 2009).

[6] Elise Craig. 2009. "An ARPA for Energy Is Greeted With Enthusiasm." The Outlook for Energy. Business Week. (July 23, 2009).

FRONT PAGE STATISTICS

Area
Data are for Santa Clara and San Mateo Counties, Fremont, Newark, Union City, and Scotts Valley. Land Area data (except for Scotts Valley) is from the U.S. Census Bureau: State and County QuickFacts. Data is derived from Population Estimates, 2000 Census of Population and Housing, 1990 Census of Population and Housing, Small Area Income and Poverty Estimates, County Business Patterns, 1997 Economic Census, Minority- and Women-Owned Business, Building Permits, Consolidated Federal Funds Report, Census of Governments. Scotts Valley data is from the Scotts Valley Chamber of Commerce.

Population
Data for the Silicon Valley population come from the E-1: City/County Population Estimates with Annual Percent Change report by the California Department of Finance and are for Silicon Valley cities. Population estimates are for 2009.

Jobs
Silicon Valley employment data are provided by the California Employment Development Department and are from Joint Venture: Silicon Valley Network's unique data set. The data set counts jobs in the region and uses data from the Quarterly Census of Wages and Employment program that produces a comprehensive tabulation of employment and wage information for workers covered by State unemployment insurance (UI) laws and Federal workers covered by the Unemployment Compensation for Federal Employees (UCFE) program. Employment data exclude members of the armed forces, the self-employed, proprietors, domestic workers, unpaid family workers, and railroad workers covered by the railroad unemployment insurance system. Covered workers may live outside of the Silicon Valley region. Multiple jobholders (i.e., individuals who hold more than one job) may be counted more than once. Data for Quarter 2 2009 are preliminary-revised. Data is for Santa Clara and San Mateo Counties, Scotts Valley, Fremont, Newark, and Union City.

Average Annual Earnings
Figures were derived from the EDD/Joint Venture Silicon Valley Network data set and are reported for Fiscal Year 2009 (Q3 & Q4 2008, Q1 & Q2 2009). Wages were adjusted for inflation and are reported in first half of 2009 dollars using the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics. Data for Quarter 2 2009 are preliminary-revised. Data is for Santa Clara and San Mateo Counties, Scotts Valley, Fremont, Newark, and Union City.

Foreign Immigration and Domestic Migration
Data are from the E-6: County Population Estimates and Components of Change by County - July 1, 2000-2009 report by the California Department of Finance and are for Solano County and California. Estimates for 2009 are provisional. Net migration includes all legal and unauthorized foreign immigrants, residents who left the state to live abroad, and the balance of hundreds of thousands of people moving to and from California from within the United States.

Age Distribution, Adult Educational Attainment, Foreign Born, and Ethnic Composition
Data for age distribution, adult educational attainment, and foreign born (front page statistics) are for Santa Clara and San Mateo Counties and are derived from the United States Census Bureau, 2008 American Community Survey. For educational attainment, Some College includes Less than 1 year of college; Some college, 1 or more years, no degree; Associates degree; Professional certification.

PEOPLE

Talent Flows and Diversity

Population Change and Net Migration Flows
Data are from the E-6: County Population Estimates and Components of Change by County - July 1, 2000-2009 report by the California Department of Finance and are for Solano County and California. Estimates for 2009 are provisional. Net migration includes all legal and unauthorized foreign immigrants, residents who left the state to live abroad, and the balance of hundreds of thousands of people moving to and from California from within the United States.

Percentage of Population that Speaks Language Other than English at Home
Data is from the U.S. Census Bureau, 2000-2008 American Community Survey. English speaking, multilingual households are recorded as the non-English language of the first ranked member of the household. Household members are ranked in the following order: householder, spouse, parent, sibling, child, grandchild, other relative, stepchild, unmarried partner, housemate or roommate, and other nonrelatives.

Language Spoken at Home
Data is from the U.S. Census Bureau, 2000-2008 American Community Survey. Spanish language households include Spanish Creole speaking households. Other Indo-European language households includes French (including Patois, Cajun, Creole), Italian, Portuguese (including Creole), Scandinavian languages, Greek, Russian, Polish, Serbo-Croatian, other Slavic languages, Armenian, Persian, Gujarathi, Hindi, Urdu, other Indic languages, and other Indo-European languages. Other Asian and Pacific Island language households include Japanese, Korean, Mon-Khmer, Cambodian, Miao, Hmong, Thai, Laotian, and other Asian languages. All other language households include Navajo, other native North American languages, Hungarian, Arabic, Hebrew, African languages, and other, unspecified languages.

Percentage of Science & Engineering Degrees Conferred to Nonpermanent U.S. Residents; and Foreign Students
State and regional data for 1995-2007 are from the National Center for Education Statistics, IPEDS. Regional data for the Silicon Valley includes the following post secondary institutions: Menlo College, Cogswell Polytechnic College, University of San Francisco, University of California (Berkeley, Davis, Santa Cruz, San Francisco), Santa Clara University, San Jose State University, San Francisco State University, Stanford University, Golden Gate University. The academic disciplines include: computer and information sciences, engineering, engineering-related technologies, biological sciences/life sciences, mathematics, physical sciences and science technologies. Data were analyzed based on 1st major, citizenship, and level of degree (bachelors, masters or doctorate). Data for 1999 is not available.

ECONOMY

Employment

Monthly Jobs and Change in Total Nonfarm Jobs
Monthly jobs data are from the Bureau of Labor Statistics, Current Population Survey (CPS) and Local Area Unemployment Statistics (LAUS). Data is not seasonally adjusted. Data is for the San Mateo and Santa Clara Counties. December data is preliminary.

Quarterly Job Growth
Silicon Valley employment data are provided by the California Employment Development Department and are from Joint Venture: Silicon Valley Network's unique data set. The data set counts jobs in the region and uses data from the Quarterly Census of Wages and Employment program that produces a comprehensive tabulation of employment and wage information for workers covered by State unemployment insurance (UI) laws and Federal workers covered by the Unemployment Compensation for Federal Employees (UCFE) program. Employment data exclude members of the armed forces, the self-employed, proprietors, domestic workers, unpaid family workers, and railroad workers covered by the railroad unemployment insurance system. Covered workers may live outside of the Silicon Valley region. Multiple jobholders (i.e., individuals who hold more than one job) may be counted more than once. Data for Quarter 2 2009 are preliminary-revised. Data is for Santa Clara and San Mateo Counties, Scotts Valley, Fremont, Newark, and Union City.

Unemployment Rate
Monthly unemployment rate data are from the Bureau of Labor Statistics, Current Population Statistics (CPS) and the Local Area Unemployment Statistics (LAUS) and the California Employment Development Department, LAUS. Data is not seasonally adjusted. Data is for the Silicon Valley region is the San Mateo and Santa Clara Counties. December data is preliminary.

Employment Services, Total Number of Jobs by Month
Data is not seasonally adjusted and includes only employment for the Employment Services industry. Monthly jobs data are from the Bureau of Labor Statistics, Current Employment Statistics Survey (CES). Data is for the San Jose-Sunnyvale-Santa Clara MSA. December data is preliminary.

Nonemployer Firms
Data for Nonemployers are from the U.S. Census Bureau. Nonemployer statistics summarizes the number of establishments and sales or receipts of businesses without paid employees that are subject to federal income tax. Most nonemployers are self-employed individuals operating very small unincorporated businesses, which may or may not be the owner's principal source of income.

Major Areas of Economic Activity
Silicon Valley employment data are provided by the California Employment Development Department and are from Joint Venture: Silicon Valley Network's unique data set. The data set counts jobs in the region and uses data from the Quarterly Census of Wages and Employment program that produces a comprehensive tabulation of employment and wage information for workers covered by State unemployment insurance (UI) laws and Federal workers covered by the Unemployment Compensation for Federal Employees (UCFE) program. Employment data exclude members of the armed forces, the self-employed, proprietors, domestic workers, unpaid family workers, and railroad workers covered by the railroad unemployment insurance system. Covered workers may live outside of the Silicon Valley region. Multiple jobholders (i.e., individuals who hold more than one job) may be counted more than once. All industries are included in the major areas of economic activity. Quarter 2 2009 are preliminary-revised. Data is for Santa Clara and San Mateo Counties, Scotts Valley, Fremont, Newark, and Union City.

Total Business Establishments Jobs in the Core Green Economy
The accounting of green business establishments and jobs is based on the methodology originally developed on behalf of Next 10 for the California Green Innovation Index. This database has been built through the use of multiple data sources for the identification and classification of green businesses (such as New Energy Finance and Cleantech GroupTM, LLC and others) and leveraged a sophisticated internet search process. The National Establishment Time Series (NETS) database based on Dun & Bradstreet establishment data was sourced to extract business information such as jobs. The operational definition of green is based primarily on the definition of "cleantech" established by the Cleantech GroupTM, LLC. This sample offers a conservative estimate of green jobs in California.

Income

Real per Capita Income
Total personal income and population data are from Economy.com. Income values are inflation-adjusted and reported in first-half 2009 dollars, using the CPI for the U.S. City Average from the Bureau of Labor Statistics. Silicon Valley data includes Santa Clara and San Mateo Counties.

Median Household Income
Data for Distribution of Income and Median Household Income are from the 2000-2008 American Community Survey from the U.S. Census Bureau. All income values are inflation-adjusted and reported in first half 2009 dollars, using CPI for the U.S. City Average from the Bureau of Labor Statistics. Silicon Valley data includes Santa Clara and San Mateo Counties. Household Income includes wage or salary income; net self-employment income; interest, dividends, or net rental or royalty income from estates and trusts; Social Security or railroad retirement income; Supplemental Security Income; public assistance or welfare payments; retirement, survivor, or disability pensions; and all other income; excluding stock options.

Income Distribution
Data for Distribution of Income are from the American Community Survey from the U.S. Census Bureau. Income ranges are in nominal values. Silicon Valley data includes Santa Clara and San Mateo Counties. Income is the sum of the amounts reported separately for the following eight types of income: wage or salary income; net self-employment income; interest, dividends, or net rental or royalty income from estates and trusts; Social Security or railroad retirement income; Supplemental Security income; public assistance or welfare payments; retirement, survivor, or disability pensions; and all other income.

Rate of Total Non-Business Bankruptcy Filings per 1,000 Persons
The bankruptcy data reported by RAND is for California, regions, and counties, and U.S. states, and is based upon data from the Administrative Office of the U.S. Bankruptcy Courts. The source for population data used to calculate per capita rates is RAND California for years 1996 through 2007; Population is estimated for some time periods. The California Department of Finance population figures were used for County and State 2008 and 2009 population figures. The U.S. 2008 and 2009 population figures came from the US Census Bureau (2008 Estimated; 2009 Projected)

Food Stamp Usage
Data is from the New York Times, Food Stamp Usage Across the Country; the U.S. Department of Agriculture; and the U.S. Census Bureau, Population Estimates. Food Stamp Usage rates are based off county-level estimates. Silicon Valley includes Santa Clara and San Mateo Counties.

Innovation

Value Added per Employee
Value added per employee is calculated as regional gross domestic product (GDP) divided by the total employment. GDP estimates the market value of all final goods and services. GDP and employment data are from Moody's Economy.com. Employment data does not include farming. All GDP values are inflation-adjusted and reported in first half 2009 dollars, using CPI for the U.S. City Average from the Bureau of Labor Statistics. Silicon Valley data is for Santa Clara and San Mateo Counties.

Patent Registrations
Patent data comes from the U.S. Patent and Trademark Office, and consists of Utility patents granted by inventor. Geographic designation is given by the location of the first inventor named on the patent application. Silicon Valley patents include only those patents filed by residents of Silicon Valley cities. Data are based on Joint Venture's city defined region of Silicon Valley.

Patents Registrations by Technology Area
Patent data is provided by the U.S. Patent and Trademark Office, and consists of utility patents granted by inventor. Geographic designation is given by the location of the first inventor named on the patent application. Silicon Valley patents include only those patents filed by residents of Silicon Valley cities. Data are based on Joint Venture's city defined region of Silicon Valley. Technology areas are based on the International Patent Classification System (IPC) and grouped according to certain technologies (see Patent Technology Areas table).

Green Technology Patents
1790 Analytics developed and performed the search of detailed U.S. Patent data from the U.S. Patent & Trade Office based on search criteria defined by Collaborative Economics for the eight technology areas: solar, wind, hydro and geothermal energy generation, energy storage, fuel cells, hybrid systems and energy infrastructure. Data are based on Joint Venture's ZIP-Code-defined region of Silicon Valley.

Venture Capital: Total, by industry, Share of U.S.
Data are provided by The MoneyTree™ Report from PriceWaterhouseCoopers and the National Venture Capital Association based on data from Thompson Reuters. For the Index of Silicon Valley, only investments in firms located in Silicon Valley, based on Joint Venture's ZIP-code defined region, were included. Values are inflation-adjusted and reported in 2009 dollars using the CPI for the U.S. City Average from the Bureau of Labor Statistics.

Cleantech Venture Capital: Total & by Segment
Data provided by Cleantech Group™, LLC. For this analysis, venture capital is defined as disclosed clean tech investment deal totals. Data are based on Joint Venture's ZIP-code-defined region of Silicon Valley. The Cleantech Group describes cleantech as new technology and processes, spanning a range of industries that enhance efficiency, reduce or eliminate negative ecological impact, and improve the productive and responsible use of natural resources. See box for cleantech industry segments. All values are inflation-adjusted and reported in first-half 2009 dollars, using the CPI for the U.S. City Average from the Bureau of Labor Statistics.

Initial Public Offerings
Data is from Renaissance Capital's IPOhome.com and the location based on corporate address provided by IPOhome.com. The data was pulled from the website on January 05, 2010.

Mergers & Acquisitions
Data provided by FactSet Mergerstat LLC. Data are based on Joint Venture's ZIP-code-defined region of Silicon Valley. All merger and acquisition deals do not disclose value. Total values are based on all of the deals with values disclosed. All forms of mergers and acquisitions are included in count except for joint ventures.

Silicon Valley Churn: Establishments
The National Establishment Time-Series Database (NETS), prepared by Walls & Associates using Dun & Bradstreet establishment data, was sourced for jobs data and establishment counts. Silicon Valley is defined as Santa Clara and San Mateo Counties in this analysis.

SOCIETY

Preparing for Economic Success
High School Graduation Rate & Percentage that Meet UC/CSU Entrance Requirements, High School Student Population, and High School Graduation Rates by Ethnicity
Data for the 2007-2008 academic year are provided by the California Department of Education. 2006-2007 was the first year statistics have been derived from student level records. California Legislature enacted SB1453, which establishes two key components necessary for a long-term assessment and accountability system: (1) Assignment of a unique, student identifier to each K-12 pupil enrolled in a public school program or in a charter school that will remain with the student throughout his or her academic 'career' in the California public school system; and (2) Establishment of a longitudinal database of disaggregated student information that will enable state policy-makers to determine the success of its program of educational reform. Historical data are final and are from the California Department of Education. The methodology used calculates an approximate probability that one will graduate on time by looking at the number of 12th grade graduates and number of 12th, 11th, 10th and 9th grade dropouts over a four year period. Silicon Valley and California Dropout Rates data is from the same source as the High School Dropout Rate chart data (see below).

High School Dropout Rate
Data for the 2007/2008 academic year are provided by the California Department of Education. This is the second year that statistics have been derived from student level records. California Legislature enacted SB1453, which establishes two key components necessary for a long-term assessment and accountability system: (1) Assignment of a unique, student identifier to each K-12 pupil enrolled in a public school program or in a charter school that will remain with the student throughout his or her academic 'career' in the California public school system; and (2) Establishment of a longitudinal database of disaggregated student information that will enable state policy-makers to determine the success of its program of educational reform. The 4-year derived dropout rate is an estimate of the percent of students who would drop out in a four year period based on data collected for a single year.

Algebra II Scores
Data are from the California Department of Education, California Standards Tests (CST) Research Files for San Mateo and Santa Counties. In 2003, the California Standards Tests (CST) replaced the Stanford Achievement Test, ninth edition (SAT/9. The CSTs in English–language arts, mathematics, science, and history–social science are administered only to students in California public schools. Except for a writing component that is administered as part of the grade four and grade seven English–language arts tests, all questions are multiple-choice. These tests were developed specifically to assess students' knowledge of the California content standards. The State Board of Education adopted these standards, which specify what all children in California are expected to know and be able to do in each grade or course. The 2009 Algebra II CSTs were required for students who were enrolled in the grade/course at the time of testing or who had completed a course during the 2008–09 school year, including 2008 summer school. The following types of scores are reported by grade level and content area for each school, district, county, and the state: % Advanced, % Proficient, % Basic, % Below Basic and % Far Below Basic is the percentage of students in the group whose scores were at this performance standard. The state target is for every student to score at the Proficient or Advanced Performance Standard.

Total Enrollment in UC/CSU Systems
Data are from the National Center for Education Statistics' Integrated Postsecondary Education Data System (IPEDS) enrollment survey. School includes 10 schools within the University of California system, and 24 schools within the California State system. Data are based upon fall enrollment of all students.

Early Education

Childcare Arrangements
Data provided by the UCLA California Health Interview Survey. Data are for San Mateo and Santa Clara counties. The type of childcare reflects childcare arrangements for 10 or more hours per week. The childcare topic is asked of all children - with "Type of Childcare" asked of children with regular childcare for 10 hours or more in a typical week. Even though a child may be in school most of the day, this question is designed to account for before-school and after-school childcare arrangements. By childcare, it is meant any arrangement where someone other than the parents, legal guardian, or stepparents takes care of (CHILD). {This includes preschool and nursery school, but not kindergarten.} Children are aged birth to 12 years of age. Other includes Head Start/State Program, Preschool or Nursery School, Non-Family member, and Other Source.

Percentage of Entering Kindergarten Students with Preschool Experience and Kindergarten Readiness/Teacher Expectations
The source for this data is Applied Survey Research in conjunction with the Peninsula Community Foundation, Santa Clara County Partnership for School Readiness, and United Way Silicon Valley. The data is based upon the Kindergarten Observation Form I and Parent Information Form administered for the 2005 and 2008 academic years. For purposes of this report, the term "preschool" is used to indicate that children had regular experience in a formal, curriculum_based, child care center during the year prior to kindergarten. A child was considered to have preschool experience if at least one of the following were true: (1) the kindergarten teacher indicated that the child had participated in an state preschool or district Child Development Center (CDC), a Head Start program, or another licensed preschool/ child care center; and / or (2) parents listed a preschool or child care center that was checked and verified against a 4Cs list of valid, licensed, child care centers. Any child who was not confirmed as having preschool experience in one of these ways was not included in the calculation of the sample's preschool rate.

Third grade English-Language Arts Proficiency by Race/Ethnicity
Data is from the California Department of Education, California Standards Tests (CST) Research Files for San Mateo and Santa Counties. The CSTs in English–Language Arts for third graders was administered only to students in California public schools and all questions were multiple-choice. These tests were developed specifically to assess students' knowledge of the California content standards, set by the State Board of Education. The 2009 English Language Arts CSTs were required for students who were enrolled in the grade/course at the time of testing or who had completed a course during the 2008–09 school year, including 2008 summer school. The following types of scores are reported by grade level and content area for each school, district, county, and the state: % Advanced, % Proficient, % Basic, % Below Basic and % Far Below Basic is the percentage of students in the group whose scores were at this performance standard. The state target is for every student to score at the Proficient or Advanced Performance Standard.

Arts & Culture

Arts & Culture Organizations with Operating Budgets of over $10 Million, Foundation Support of Arts & Culture Organizations Percentage of Total Giving by Silicon Valley's 25 Largest Foundations, Funding Sources for Arts & Cultural Organizations, and New Arts & Culture Start Up Organizations
Data on nonprofit organizations in this overview has been generated from 1stACT's development of an exhaustive, proprietary cultural organization database capturing 659 active arts, culture, and humanities organizations operating in the Joint Venture defined region Silicon Valley region as of December 2008. A dynamic online database was chosen so as to provide 1st ACT the option to update the data for ongoing use and to be able to analyze trends, to formulate strategies, and to benchmark results. Options for organization type are based on the NTEE codes (National Taxonomy of Exempt Entities) Classification System developed by The National Center for Charitable Statistics. Organizational description is based on the NEA (National Endowment for the Arts) grant application options. Organizational and Targeted Race/ethnicity categories are from National Census categories. To procure a primary universe of organizations for Silicon Valley, consultants performed a search of Guidestar.org (the premier online holder of nonprofit data) for the zip codes of Silicon Valley derived from the 2005 Joint Venture Silicon Valley definition. Guidestar data contributed a universe of over 700 organizations. This search focused on organizations that self-coded as an "arts" organization, was a 501c3, within the geographic scope. This search provided NTEE codes, addresses, and most current reported financial data. Additional organizations were added from current and past grant records of the San José Office of Cultural Affairs and Arts Council Silicon Valley. Additionally, organization lists were provided by Artsopolis, and cross-referenced. A significant number of these were not listed elsewhere as nonprofits. Although the majority of organizations were already captured through the Guidestar search, the grant applications and Artsopolis provided information on smaller organizations in the area.

Quality of Health

Immunization for Children Ages 19-35 Months
The source for the annual Santa Clara County, California and United States data is the U.S. Department of Human Health and Services, Center for Disease Control and Prevention. The data based on immunization rates of children 19 to 35 months of age. Data reflects 4:3:1:3:3: 4 or more doses of DTaP, 3 or more doses of poliovirus vaccine, 1 or more doses of any MMR, 3 or more doses of Hib, and 3 or more doses of HepB.

Prevention Quality Indicator: Hospital Discharges for Ambulatory Care Sensitive Condition
Data for the Preventable Hospitalizations indicator is provided by the Office of Statewide Health Planning and Development (OSHPD). OSHPD provided the number of hospital discharges as they relate to 12 Prevention Quality Indicators (PQI) created by the US Agency for Healthcare Research and Quality (AHRQ). The discharges for these 12 indicators have been combined and divided by the population to calculate an overall prevention hospitalization rate for the Silicon Valley and California. The source for the 18 and over population figures is the American Community Survey, U.S. Census Bureau. The PQIs represent health conditions that are serious in nature but are referred to as ambulatory care sensitive conditions (ACSCs). ACSCs are distinct conditions for which timely intervention and high quality outpatient care can potentially prevent the need for hospitalization. Avoiding or reducing such admissions related to these conditions should result in reduced healthcare costs as well as reduced morbidity and suffering for patients with these diseases. AHRQ developed the Prevention Quality Indicators (PQIs) as a tool for tracking these conditions. The PQIs were designed to identify community healthcare needs in the outpatient setting, providing information on the quality of the healthcare system outside the hospital. However, they are not intended to be stand-alone measures of community healthcare quality. Prevention Quality Indicators included in the overall prevention quality indicator are the following: PQI 1 – Diabetes short term complication admission rate, PQI 3 – Diabetes long-term complication admission rate, PQI 5 – Chronic obstructive pulmonary disease (COPD) admission rate, PQI 7 – Hypertension admission rate, PQI 8 – Congestive heart failure (CHF) admission rate, PQI 10 – Dehydration admission rate, PQI 11 – Bacterial pneumonia admission rate, PQI 12 – Urinary tract infection admission rate, PQI 13 – Angina admission without procedure, PQI 14 – Uncontrolled diabetes admission rate, PQI 15 – Adult asthma admission rate, and PQI 16 – Rate of lower-extremity amputation among patients with diabetes.

Health Insurance by Language Spoken at Home and by Source
All data on insurance coverage are drawn from the California Health Interview Survey, carried out by the UCLA Center for Health Policy Research. For health insurance coverage, the indicator measures the share of people who answered "yes" when asked by the interviewer whether or not they are covered by health insurance. Data are for Santa Clara and San Mateo Counties. The indicator gives no indication of the quality or comprehensiveness of insurance coverage.

Percentage of Population with Health Insurance Coverage by Age Group
Data is from the U.S. Census Bureau, 2008 American Community Survey. Silicon Valley data is for Santa Clara and San Mateo Counties. In 2008, the American Community Survey began asking about current health insurance coverage.

Infant Mortality Rate
Data is provided by the California Department of Health, Center for Health Statistics, 1994-2007. Silicon Valley estimates are for San Mateo and Santa Clara Counties.

Safety

Substantiated Cases of Child Abuse per 1,000 Children

Child maltreatment data are from the California Children's Services Archive, CWS/CMS 2008 Quarter 4 Extract. Data are downloaded from the Center for Social Services Research at the University of California at Berkley. Population Data Source: California Department of Finance annual population projections (Based on the 2000 U.S. Census).

Felony Offenses: Adult and Juvenile

Crime data are from the FBI's Uniform Crime Reports, as reported by the California Department of Justice in their annual "Criminal Justice Profiles". Data are reported for Santa Clara and San Mateo Counties, and California. Felony offenses include violent, property and drug offenses.

Drug and Alcohol Rehabilitation Clients & Felony Drug Offenses: Adult and Juvenile

Felony drug offenses are from the FBI's Uniform Crime Reports, as reported by the California Department of justice in their annual "Criminal Justice Profiles". Drug rehabilitation data include the number of clients across all modalities utilizing residential and outpatient drug and alcohol rehabilitation services provided by Santa Clara and San Mateo counties. Data are an unduplicated count of residents served. Data is provided by the Santa Clara County Department of Alcohol and Drug Services, and by the San Mateo County Behavioral Health and Recovery Services.

Public School Expulsions due to Violence/Drugs

Data is obtained from the California Department of Education, Dataquest site. Numbers reflect suspensions across all grades (K-12) and are presented as a percentage of enrollments. Data was collected for Santa Clara County, San Mateo County and California.

PLACE

Environment

Protected Open Space

Data are from GreenInfo Network's Bay Area Protected Lands Database, and are for Santa Clara and San Mateo Counties, Scotts Valley, Fremont, Newark, and Union City. Data include lands owned by public agencies and non-profit organizations that are protected primarily for open space uses and that are accessible to the general public without any special permission. Previously, parks less than 10 acres were excluded from the dataset, but in the 2006 update, there was no acreage cut-off. The data was updated for the years 2005 and 2006.

Solar Installations by Sector

The California Solar Initiative (CSI) is part of the Go Solar California campaign, an unprecedented $3.3 billion ratepayer-funded effort that aims to install 3,000 MW of new grid-connected solar over the next decade and to transform the market for solar energy. CSI is overseen by the California Public Utilities Commission and provides incentives for solar system installations to customers of the state's three investor-owned utilities (IOUs): Pacific Gas & Electric, San Diego Gas & Electric (SDG&E) and Southern California Edison. The program tracks the solar capacity added, and the data reflected in the Index includes all projects with confirmed registration dates.

Water Resources

Data for this indicator was provided by the Bay Area Water Supply and Conservation Agency (BAWSCA). Data is compiled annually among BAWSCA agencies to update key information and assist in projecting suburban demand and population. Gross per capita consumption includes residential, non-residential, recycled and unaccounted for water use among the Santa Clara and San Mateo County BAWSCA agencies.

Electricity Productivity and Electricity Consumption per Capita

Gross Domestic Product (GDP) data is from Moody's Economy.com. Electricity Consumption data is from the California Energy Commission. GDP values are inflation-adjusted and reported in first-half 2009 dollars, using the CPI for the U.S. City Average from the Bureau of Labor Statistics. To compute per capita values, "Revised County Population Estimates, 1970-2008, December 2008 from the California Department of Finance for California were used." Silicon Valley data includes Santa Clara and San Mateo Counties.

Transportation

Means of Commute

Data on the means of commute to work are from the United States Census Bureau, 2003 and 2008 American Community Survey. Data are for workers 16 years old and over residing in Santa Clara and San Mateo Counties commuting to the geographic location at which workers carried out their occupational activities during the reference week whether or not the location was inside or outside the county limits. The data on employment status and journey to work relate to the reference week; that is, the calendar week preceding the date on which the respondents completed their questionnaires or were interviewed. This week is not the same for all respondents since the interviewing was conducted over a 12-month period. The occurrence of holidays during the relative reference week could affect the data on actual hours worked during the reference week, but probably had no effect on overall measurement of employment status. People who used different means of transportation on different days of the week were asked to specify the one they used most often, that is, the greatest number of days. People who used more than one means of transportation to get to work each day were asked to report the one used for the longest distance during the work trip. The category, "Car, truck, or van," includes workers using a car (including company cars but excluding taxicabs), a truck of one-ton capacity or less, or a van. The category, "Public transportation," includes workers who used a bus or trolley bus, streetcar or trolley car, subway or elevated, railroad, or ferryboat, even if each mode is not shown separately in the tabulation. The category "Other Means" includes taxicab, motorcycle, bicycle and other means that are not identified separately within the data distribution.

Transit Use

Estimates are the sum of annual ridership on the light rail and bus systems in Santa Clara and San Mateo Counties, and rides on Caltrain. Data are provided by Sam Trans, Valley Transportation Authority, Altamont Commuter Express, and Caltrain. Revised County Population Estimates, 1970-2008, December 2008 from the California Department of Finance were used to compute per-capita values.

Alternate Fuel Vehicles Registered

Alternative fuel vehicle data are provided by R.L. Polk & Co. Data is for Santa Clara and San Mateo Counties, Scotts Valley, Fremont, Newark, and Union City. Data includes newly registered vehicles for new and used vehicles.

Vehicle Miles of Travel and Gas Prices

Vehicle Miles Traveled (VMT) is defined as total distance traveled by all vehicles during selected time period in geographic segment. VMT estimates are from the California Department of Transportation's "2008 California Motor Vehicle Stock, Travel, and Fuel Forecast." Data includes annual total VMT on State highways and non-state highways. In order to calculate VMT, Caltrans multiplies the road section length (length in miles along the centerline of the roadway) by Average Annual Daily Traffic (AADT). AADT are actual traffic counts that the city, county, or state have taken and reported to the California Department of Transportation. To compute per-capita values, Revised County Population Estimates, 1970-2008, December 2008 from the California Department of Finance were used. Gas prices are average annual retail gas prices for California, and come from the Weekly Retail Gasoline and Diesel Prices (Cents per Gallon, Including Taxes) datasseries reported by the U.S. Department of Energy, Energy Information Administration. Gas prices are All Grades All Formulations Retail Gasoline Prices (including taxes) and have been adjusted into first half of 2009 dollars using the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics. Silicon Valley data is for Santa Clara and San Mateo Counties.

Fuel Consumption per Capita

Fuel consumption data are from the Caltrans, 2008 "California Motor Vehicle Stock, Travel, and Fuel Forecast" and include estimates for diesel and gasoline. Figures for 2008 are projections. Silicon Valley data is for Santa Clara and San Mateo Counties. To compute per-capita values, Revised County Population Estimates, 1970-2008, December 2008 from the California Department of Finance were used.

Land Use

Residential Density

Joint Venture: Silicon Valley Network conducted a land-use survey of all cities within Silicon Valley. Collaborative Economics completed the survey compilation and analysis. Participating cities included: Belmont, Brisbane, Burlingame, Campbell, Cupertino, East Palo Alto, Foster City, Fremont, Gilroy, Hayward, Hillsborough, Los Altos, Los Altos Hills, Los Gatos, Menlo Park, Millbrae, Milpitas, Monte Sereno, Morgan Hill, Mountain View, Newark, Palo Alto, Portola Valley, Redwood City, San Bruno, San Carlos, San Jose, San Mateo, Santa Clara, Saratoga, Scotts Valley, South San Francisco, Sunnyvale, Union City and Woodside. Santa Clara and San Mateo Counties are also included. In 2008, the survey was expanded to include more cities along the 101 corridor: Belmont, Brisbane, Burlingame, Millbrae, San Bruno, and South San Francisco. Most recent data are for fiscal year 2009 (July '08-June'09). The average units per acre of newly approved residential development are reported directly for each of the cities and counties participating in the survey.

Housing and Development Near Transit

Data are from Joint Venture: Silicon Valley Network of Survey Cities. The number of new housing units and the square feet of commercial development within one-quarter mile of transit are reported directly for each of the cities and counties participating in the survey. Places with one-quarter mile of transit are considered "walkable" (I.e. within a 5- to 10-minute walk, for the average person).

Adoption of Green Building Policies

Data are from Joint Venture: Silicon Valley Network of Survey Cities. In recent years, cities have adopted green building codes, and in July of 2008 California approved statewide codes. In order to track achievements in this area, beginning in 2008, the survey included questions related to green building codes.

Renewable Energy Permitting

Data are from Joint Venture: Silicon Valley Network of Survey Cities. In recent years, residents and cities have begun investing substantially in renewable energy technology to provide electricity for their property and homes. In order to track achievements in this area, this year's survey included questions related to the renewable energy portfolios of the surveyed cities and its residents.

Housing

Building Affordable Housing

Data are from Joint Venture: Silicon Valley Network of Survey Cities. Affordable units are those units that are affordable for a four-person family earning up to 80 percent of the median income for a county. Cities use the U.S. Department of Housing and Urban Development's (HUD) estimates of median income to calculate the number of units affordable to low-income households in their jurisdiction.

Rental Affordability

Data on average rental rates are from RealFacts survey of all apartment complexes in Santa Clara and San Mateo Counties of 40 or more units. Rates are the prices charged to new residents when apartments turn over and have been adjusted into 2009 dollars using the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics. Median household income data is from the United States Census Bureau, American Community Survey.

Home Affordability

Data are from the California Association of Realtors' (CAR) Housing Affordability Index. CAR stopped producing the Housing Affordability Index for all home buyers since the end of 2005 and now produces a Housing Affordability Index for first-time buyers, which has been updated historically to 2003. The data for Silicon Valley includes Santa Clara and San Mateo County and is based on the median price of existing single family homes sold from CAR's monthly existing home sales survey, the national average effective mortgage interest rate as reported by the Federal Housing Finance Board, and the median household income as reported by Claritas/NPDC. Quarterly Sales Volume for Existing Single Family Detached Home Sales data were provided by DataQuick Information Systems through 2008 Quarter 2 and RAND from 2008 Quarter 3 through 2009 Quarter 3.

Residential Foreclosure Activity

Foreclosure and number of home sales data are from RAND California. RAND compiled originating data from the California Realtors Association and DataQuick News. Data reflects total foreclosures and number of home sales for townhomes, condominiums and single family homes. Foreclosure data for 2009 is through October. Data are based on Joint-Venture's ZIP-code-defined region of Silicon Valley.

Commercial Space

Commercial Space

Data is from Colliers International. Commercial space includes office, R&D, industrial and warehouse space. The vacancy rate is the amount of unoccupied space and is calculated by dividing the sum of the direct vacant and sublease vacant space by the building base. The vacancy rate does not include occupied space that is presently being offered on the market for sale or lease. Net absorption is the change in occupied space during a given time period. Average asking rents are inflation-adjusted and reported in first-half 2009 dollars, using the CPI for the U.S. City Average from the Bureau of Labor Statistics.

Commercial Vacancy
Data is from Colliers International. Commercial space includes office, R&D, industrial and warehouse space. The vacancy rate is the amount of unoccupied space and is calculated by dividing the sum of the direct vacant and sublease vacant space by the building base. The vacancy rate does not include occupied space that is presently being offered on the market for sale or lease. Net absorption is the change in occupied space during a given time period. Average asking rents are inflation-adjusted and reported in first-half 2009 dollars, using the CPI for the U.S. City Average from the Bureau of Labor Statistics.

Commercial Rents
Data is from Colliers International. Commercial space includes office, R&D, industrial and warehouse space. The vacancy rate is the amount of unoccupied space and is calculated by dividing the sum of the direct vacant and sublease vacant space by the building base. The vacancy rate does not include occupied space that is presently being offered on the market for sale or lease. Net absorption is the change in occupied space during a given time period. Average asking rents are inflation-adjusted and reported in first-half 2009 dollars, using the CPI for the U.S. City Average from the Bureau of Labor Statistics.

New Commercial Development
Data is from Colliers International. Commercial space includes office, R&D, industrial and warehouse space. The vacancy rate is the amount of unoccupied space and is calculated by dividing the sum of the direct vacant and sublease vacant space by the building base. The vacancy rate does not include occupied space that is presently being offered on the market for sale or lease. Net absorption is the change in occupied space during a given time period. Average asking rents are inflation-adjusted and reported in first-half 2009 dollars, using the CPI for the U.S. City Average from the Bureau of Labor Statistics.

GOVERNANCE

Civic Engagement

Voter Participation
Data is from the California Secretary of State, Elections and Voter Information Division and the California State Archives Division. The eligible population is determined by the Secretary of State using Census population data provided by the California Department of Finance. Silicon Valley data is for Santa Clara and San Mateo Counties.
Percentage of Registered Voters Declaring Party Affiliation
Data is from the California Secretary of State, Elections and Voter Information Division in the form of Voter Registration and Participation data by election. Silicon Valley data is San Mateo and Santa Clara Counties.

Revenue

City Revenue by Source and City Revenue Trends
Data for city revenue are from the State of California Cities Annual Report. Data include all cities and towns and dependent special districts and do not include redevelopment agencies and independent special districts. Data include all revenue sources to cities except for utility-based services (which are self-supporting from fees and the sales of bonds), voter-approved indebtedness property tax and sales of bonds and notes. The "other taxes" and "other revenue" include revenue sources such as transportation taxes, transient lodging taxes, business license fees, other non-property taxes and intergovernmental transfers. Data are for Silicon Valley cities.

Municipal Debt Obligations Issued
The California Debt and Investment Advisory Commission Database (CDIAC), as maintained by the California Department of Treasurer, was used to compile the municipal bond data for both Santa Clara and San Mateo Counties. State law that took effect in 1982 requires all governmental agencies which issue debt to report information on each issuance to CDIAC [Government Code Sections 8855(k) and 8855(i)]. Agencies must provide data to CDIAC 30 days prior to each issuance, and within 45 days after the signing of the bond purchase contract in a negotiated or private financing, or after the acceptance of a bid in a competitive offering. Data includes both short and long term bonds as well as notes. Debt was grouped chronologically according to the sale date of type of debt (see table).

Regional-State Interface
The State of California Franchise Tax Board, Economic and Statistical Research Bureau provided tax liability data by county for years 1995-2006. Data for 2007 and 2008 are provided by zip code. Silicon Valley data includes Santa Clara and San Mateo Counties. All tax liability values are inflation-adjusted and reported in first half 2009 dollars, using CPI for the U.S. City Average from the Bureau of Labor Statistics.

Municipal Debt Obligations Issued Category Groupings

- **Education**
  - College, University Facility
  - K-12 School Facility
  - Other, Multiple Educational Uses
- **Financing**
  - Cash Flow, Interim Financing
  - Insurance and Pension Funds
  - Project, Interim Financing
- **Health Care Infrastructure**
  - Health Care Facilities
  - Hospital
- **Housing/Miscellaneous**
  - Multifamily Housing
  - Single-Family Housing
  - Convention Center
  - Equipment
  - Parking
  - Prisons, Jails, Correctional Facilities
  - Other Purpose
  - Theatre/Arts/Museums
- **Other Public Infrastructure**
  - Flood Control, Storm Damage
  - Multiple Capital Improvements, Public Works
  - Other Capital Improvements, Public Works
  - Power Generation/Transmission
  - Public Building
  - Solid Waste Recovery Facilities
- **Parks & Recreation**
  - Parks, Open Space
  - Recreation and Sports Facilities
- **Redevelopment Transportation Infrastructure**
  - Redevelopment, Multiple Purposes
  - Airport
  - Bridges and Highways
  - Ports, Marines
  - Public Transit
  - Street Construction and Improvements
- **Water & Wastewater**
  - Wastewater Collection, Treatment
  - Water Supply, Storage, Distribution

SPECIAL ANALYSIS

Global Connections

Global Venture Capital Flows
Thompson Reuters produced special tabulations on venture capital investment to and from Silicon Valley. Silicon Valley was defined by area codes 408 and 650. All investment values are adjusted into 2009 U.S. dollars using CPI for the U.S. City Average from the Bureau of Labor Statistics.

Foreign-Born S&E Students
Data are from the National Center for Education Statistics, IPEDS. The academic disciplines include: computer and information sciences, engineering, engineering-related technologies, biological sciences/life sciences, mathematics, physical sciences and science technologies. Data were analyzed based on 1st major, citizenship, and level of degree (bachelors, masters or doctorate). Data for 1999 is not available.

Changing Global Markets
Data on global markets is provided in the International Monetary Fund (IMF) World Economic Outlook Database. The data used in this analysis is from the October 2009 edition of the World Economic Outlook Database and was accessed using the IMF Data Mapper.

Talent

Demographic Patterns in Population Mobility
Data provided by the United States Census Bureau, 2000 Decennial Public Use Micodate Sample files (PUMS) and the 2008 American Community Survey PUMS. Data based on Public Use Microdata Area Codes for Silicon Valley. Foreign-born or people born outside of the U.S. includes people born in U.S. territories/island areas.

Occupational Concentrations
Occupational data is from Occupational Employment Statistics, Occupational Employment (May 1999 and 2008). Data provided by the U.S. Bureau of Labor Statistics, Occupational Employment Statistics released in September 2009. Silicon Valley includes data for the San Jose-Sunnyvale-Santa Clara Metropolitan Statistical Area (MSA). Prior to 2005, the county of San Benito was not included in the MSA. The median annual wage values are inflation-adjusted and reported in first half 2009 dollars, using CPI for the U.S. City Average from the Bureau of Labor Statistics.

Flows of Foreign-born S&E Talent
Data provided by the United States Census Bureau, 2000 Decennial Census and 2008 American Community Survey Public Use Microdata Samples (PUMS). The category of foreign-born includes people born in U.S. territories/island areas, residents, and naturalized citizens.

Technology Change

Patents Registrations by Technology Areas & Global Patent Collaboration
Patent data is provided by the U.S. Patent and Trademark Office, and consists of utility patents granted by inventor. Geographic designation is given by the location of the first inventor named on the patent application. Silicon Valley patents include only those patents filed by residents of Silicon Valley cities. Data are based on Joint Venture's city defined region of Silicon Valley. Technology areas are based on the International Patent Classification System (IPC) and grouped according to certain technologies (see table).

Trends in VC Investment
Refer to the Appendix entry for "Venture Capital: Total, by industry, Share of U.S." above in ECONOMY: Innovation.

Industrial Composition Change
Total employment data is from the Bureau of Labor Statistics, U.S. Department of Labor, Quarterly Census of Employment and Wages (QCEW). The QCEW produces a comprehensive tabulation of employment and wage information for workers covered by State unemployment insurance (UI) laws and Federal workers covered by the Unemployment Compensation for Federal Employees (UCFE) program. Employment data exclude members of the armed forces, the self-employed, proprietors, domestic workers, unpaid family workers, and railroad workers covered by the railroad unemployment insurance system. Covered workers may live outside of Silicon Valley (San Mateo and Santa Clara Counties). Multiple jobholders (i.e., individuals who hold more than one job) may be counted more than once.

Federal Policy

Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Awards
Data is from the U.S. Small Business Administration, Office of Technology Small Business Innovation Research Program (SBIR). Small businesses must be American-owned and independently operated, for-profit, principal researcher employed by business, and company size limited to 500 employees to participate in the program. Data for phase 1 and phase 2 awards are included in totals. Award values are inflation adjusted into 2009 half-year dollars using the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics.

SBIR and STTR Funding per $1 million GDP
Data is from the U.S. Small Business Administration, Office of Technology Small Business Innovation Research Program (SBIR). Small businesses must be American-owned and independently operated, for-profit, principal researcher employed by business, and company size limited to 500 employees to participate in the program. Data for phase 1 and phase 2 awards are included in totals. Gross Domestic Product (GDP) estimates the market value of all final goods and services. GDP data is from Moody's Economy.com. Award values and GDP are inflation adjusted into 2009 half-year dollars using the U.S. city average Consumer Price Index (CPI) of all urban consumers, published by the Bureau of Labor Statistics.

Procurement Patterns by Agency
Data is provided by the U.S. Census Bureau, Governments Division: Federal, State, and Local Governments Consolidated Federal Funds Report. Huntsville data is comprised of Madison County, and Silicon Valley data includes Santa Clara and San Mateo Counties. Washington D.C. data incorporates Calvert, Charles, Frederick, Montgomery, and Prince George's Counties from Maryland; as well as Arlington, Fairfax, Loudoun, Prince Williams, and Stafford Counties from Virginia. Procurement spending values are inflation-adjusted and reported in first half 2009 dollars, using CPI for the U.S. City Average from the Bureau of Labor Statistics. All data is in U.S. federal government fiscal years.

Stimulus Funds
Data is provided by the Independent Recovery Transparency and Accountability Board. Huntsville data is comprised of zip codes from Madison County, and Silicon Valley data includes zip codes from Santa Clara and San Mateo Counties. Washington D.C. data incorporates zip codes from Calvert, Charles, Frederick, Montgomery, and Prince George's Counties from Maryland; as well as zip codes from Arlington, Fairfax, Loudoun, Prince Williams, and Stafford Counties from Virginia. Any zip codes that are in one or more counties are attributed to the county will the largest share of that zip code.

Silicon Valley Major Areas of Economic Activity

	Employment 2009 Q2	Percent of Total Silicon Valley Employment	Percent Change 2007 - 2008	Percent Change 2008 - 2009
Total Employment	**1,322,634**	**100.0%**	**1.4%**	**-6.4%**
Community Infrastructure	**759,307**	**57.4%**	**1.1%**	**-5.5%**
Health & Social Services	127,591	9.6%	3.2%	1.4%
Retail	123,151	9.3%	-1.4%	-8.9%
Education	103,897	7.9%	2.3%	0.0%
Accomodation & Food Services	103,789	7.8%	1.5%	-3.9%
Construction	56,703	4.3%	-4.5%	-22.2%
Consumer Services	39,294	3.0%	-2.3%	-8.0%
Wholesale Trade	34,323	2.6%	-2.5%	-7.4%
Transportation	27,152	2.1%	3.3%	-5.1%
Federal Government Administration	26,073	2.0%	-0.4%	0.9%
Arts, Entertainment, & Recreation	24,576	1.9%	-3.7%	-2.8%
Consumer Financial Services	20,778	1.6%	-10.7%	-5.8%
Goods Movement	20,692	1.6%	1.4%	-13.3%
Other (Private Households & Unclassified Industries)	19,425	1.5%	96.6%	-5.3%
Nonprofits	12,429	0.9%	2.6%	1.5%
Local Government Administration	12,206	0.9%	3.7%	-0.8%
Utilities	5,007	0.4%	-0.9%	-2.1%
Warehousing & Storage	2,155	0.2%	2.0%	-4.3%
State Government Administration	66	0.0%	-12.7%	-4.3%
Information Products & Services	**272,845**	**20.6%**	**4.1%**	**-7.7%**
Software	82,965	6.3%	4.3%	-8.0%
Computer Hardware	41,785	3.2%	9.9%	-1.0%
Semiconductor & Semiconductor Equipment Manufacturing	36,408	2.8%	1.7%	-8.0%
Internet & Information Services	23,764	1.8%	10.1%	-1.0%
Electronic Component Manufacturing	22,660	1.7%	-3.2%	-20.1%
I.T. Wholesale Trade	20,187	1.5%	3.6%	-12.7%
Communications Services & Equipment Manufacturing	19,196	1.5%	1.7%	-1.2%
Instrument Manufacturing	18,857	1.4%	-3.0%	-11.0%
Other Media & Broadcasting	5,124	0.4%	39.6%	-5.2%
I.T. Repair Services	1,899	0.1%	5.1%	-5.1%
Innovation & Specialized Services	**139,449**	**10.5%**	**-0.3%**	**-7.7%**
Technical & R&D	48,422	3.7%	0.3%	-2.7%
Management Offices	26,785	2.0%	-1.3%	9.5%
Personnel	22,792	1.7%	-2.6%	-27.4%
Specialized Financial Services	20,991	1.6%	3.3%	-7.9%
Legal	10,453	0.8%	-2.8%	-5.4%
Marketing/Ad/PR	6,312	0.5%	2.4%	-5.0%
Design	3,694	0.3%	-0.1%	-25.1%
Business Infrastructure	**60,122**	**4.5%**	**-0.9%**	**-5.3%**
Facilities	38,160	2.9%	-0.6%	-3.7%
Administrative Services	21,962	1.7%	-1.5%	-8.0%
Other Manufacturing	**58,373**	**4.4%**	**-1.5%**	**-10.3%**
Diversified Ag & Food Manufacturing	13,941	1.1%	-2.8%	-4.5%
Other Primary & Fabricated Metal Manufacturing	12,374	0.9%	-3.8%	-24.1%
Other Misc. Manf. & Space & Defense Manufacturing	12,003	0.9%	1.1%	2.5%
Other Machinery & Equipment Manufacturing	10,630	0.8%	0.4%	-3.9%
Other Petrochemical Manufacturing	4,623	0.3%	3.1%	-13.7%
Textile, Wood, & Furniture Manufacturing	2,943	0.2%	-3.5%	-24.5%
Paper & Packaging Manufacturing	1,647	0.1%	-3.5%	-11.5%
Mining	212	0.0%	-15.7%	-25.6%
Life Sciences	**32,538**	**2.5%**	**4.8%**	**-5.8%**
Medical Devices	11,010	0.8%	-6.9%	-9.6%
Biotechnology	10,923	0.8%	24.2%	-6.5%
Pharmaceuticals	10,605	0.8%	1.9%	-0.8%

Note: Data is for San Mateo and Santa Clara Counties, Scotts Valley, Fremont, Newark, and Union City.
Data Source: California Employment Development Department, Labor Market Information Division, Quarterly Census of Employment and Wages
Analysis: Collaborative Economics

ACKNOWLEDGMENTS

Special thanks to the following organizations that contributed data and expertise:

1st ACT Silicon Valley
1790 Analytics
Altamont Commuter Express
Americans for the Arts
Applied Survey Research
Bay Area Water Supply and Conservation Agency
California Association of Realtors
California Department of Education
California Department of Finance
California Department of Justice
California Department of Public Health
California Department of Social Services
California Department of Transportation
California Employment Development Department
California Energy Commission
California Franchise Tax Board
California Office of Statewide Health Planning and Development
California Public Utilities Commission
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Caltrain
Center for Disease Control, National Center for Health Statistics
Center for Social Services Research, University of California Berkeley, School of Social Welfare
Center for the Continuing Study of the California Economy
City Planning and Housing Departments of Silicon Valley
Cleantech Group™, LLC
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DataQuick Information Systems
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Foundation Center
GreenInfo Network
International Monetary Fund
Midpeninsula Open Space District
Moody's Economy.com
National Center for Education Statistics
National Center for Charitable Statistics
Next 10
New York Times, Food Stamp Usage Across the United States
PricewaterhouseCoopers/National Venture Capital Association MoneyTree™ Report, Data: Thomson Reuters
Peninsula Community Foundation
Public Policy Institute of California
R.L. Polk & Co.
RAND Corporation
RealFacts
Renaissance Capital
SamTrans
San Mateo County Human Services Agency, Planning & Evaluation
Santa Clara County
Santa Clara County Department of Alcohol & Drug Services, Alcohol & Drug Services Research Institute
Santa Clara County Partnership for School Readiness
Silicon Valley City Managers
Silicon Valley Community Foundation
U.S. Bankruptcy Courts
U.S. Bureau of Labor Statistics
U.S. Census Bureau
U.S. Department of Agriculture
U.S. Department of Commerce
U.S. Department of Energy
U.S. Patent and Trademark Office
U.S. Small Business Administration
UCLA Center for Health Policy Research
United Way Silicon Valley
Valley Transportation Authority
Walls & Associates

JOINT VENTURE: SILICON VALLEY NETWORK

Established in 1993, Joint Venture: Silicon Valley Network provides analysis and action on issues affecting our region's economy and quality of life. The organization brings together established and emerging leaders—from business, government, academia, labor and the broader community—to spotlight issues, launch projects, and work toward innovative solutions.

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As a comprehensive center for philanthropy serving all of San Mateo and Santa Clara Counties, our mission is to strengthen the common good, improve the quality of life and address the most challenging problems.

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